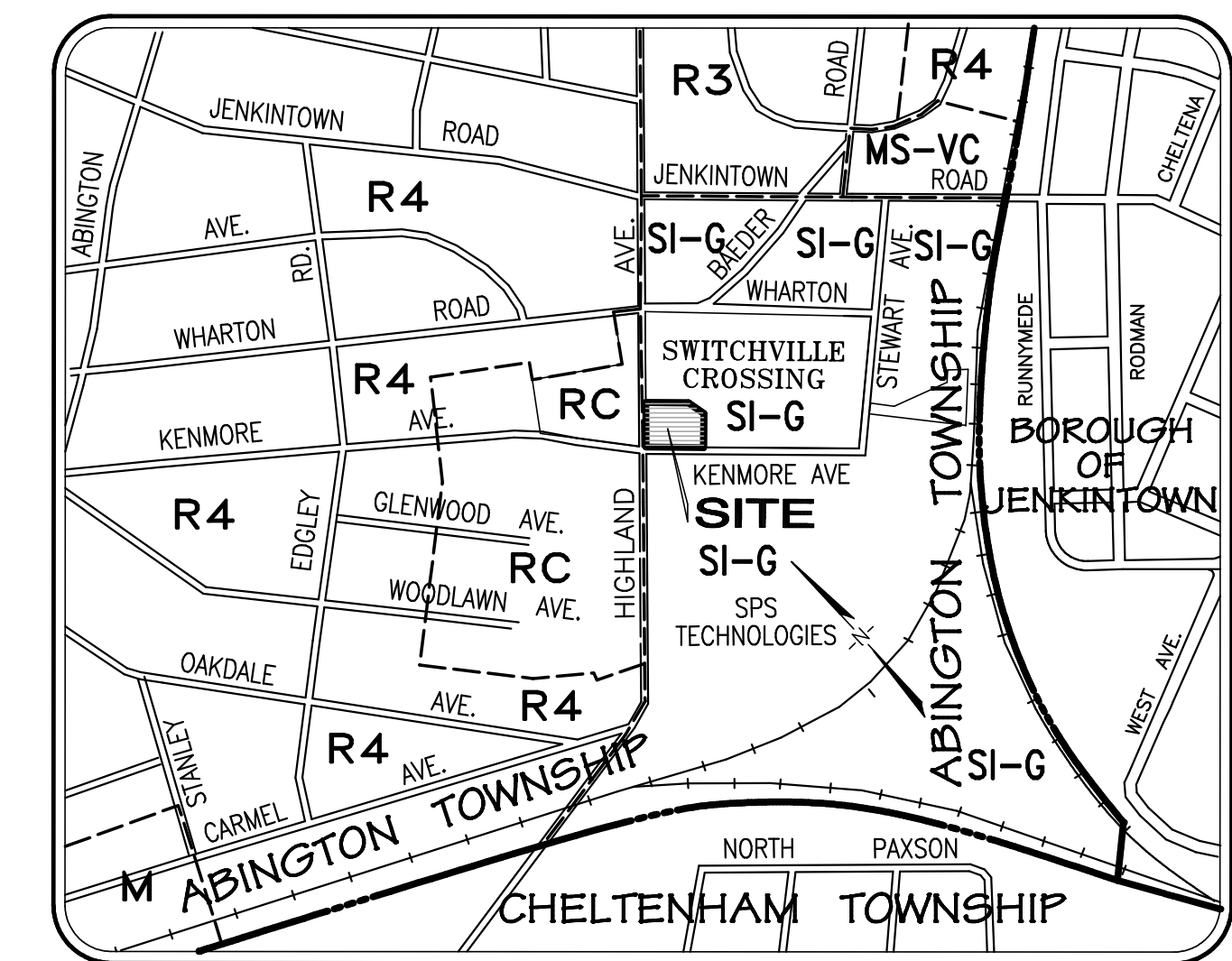


PRELIMINARY/FINAL  
LAND DEVELOPMENT PLAN

WYNCOTE SUB-STATION PARKING PLAN

AT SWITCHVILLE CROSSING  
ABINGTON TOWNSHIP  
MONTGOMERY COUNTY, PENNSYLVANIA



LOCATION MAP  
SCALE: 1" = 600'

OWNER / DEVELOPER

DUKE REAL ESTATE PARTNERS, LLC.

c/o BRIAN J. REGLI, MANAGING MEMBER  
2010 COUNTY LINE ROAD  
HUNTINGDON VALLEY, PA 19006

215-355-9513

SITE ADDRESS

HIGHLAND AVENUE  
JENKINTOWN, PA 19046

ARCHITECT

NEW CENTURY DESIGN & CONSTRUCTION, INC.  
2010 COUNTY LINE ROAD  
HUNTINGDON VALLEY, PA 19006  
215-355-9513

LANDSCAPE ARCHITECTURE

McCLOSKEY & FABER, P.C.  
831 DeKALB PIKE  
BLUE BELL, PA 19422  
610-277-9200

PLAN SHEETS 1 AND 2 TO BE RECORDED WITH THE COUNTY RECORDER OF DEEDS OFFICE.  
PLAN SHEETS 3 THROUGH 14, LANDSCAPE AND LIGHTING PLANS L-1 THROUGH L-3  
INCLUSIVE, ON RECORD AT ABINGTON TOWNSHIP, SHALL BE CONSIDERED A PART OF THE  
APPROVED PRELIMINARY/FINAL PLAN AS IF RECORDED WITH SAME.

SHEET No.	CIVIL SITE PLANS	LAST REVISED
1 OF 14	COVER SHEET	1/22/2019
2 OF 14	LAND DEVELOPMENT PLAN	1/22/2019
3 OF 14	PROJECT NOTES	1/22/2019
4 OF 14	SWITCHVILLE ORIENTATION PLAN	1/22/2019
5 OF 14	EXISTING FEATURES PLAN	1/22/2019
6 OF 14	SITE DEMOLITION PLAN	1/22/2019
7 OF 14	SITE GRADING PLAN	1/22/2019
8 OF 14	SITE UTILITY PLAN	1/22/2019
9 OF 14	EROSION & SEDIMENT CONTROL PLAN	1/22/2019
10 OF 14	STORM SEWER PROFILES	1/22/2019
11 OF 14	CONSTRUCTION DETAILS	1/22/2019
12 OF 14	CONSTRUCTION DETAILS	1/22/2019
13 OF 14	HIGHLAND AVENUE DETAILS	1/22/2019
14 OF 14	PAVEMENT MARKINGS & SIGNAGE PLAN	1/22/2019

SHEET No.	LANDSCAPE / LIGHTING PLANS	LAST REVISED
L-1	LANDSCAPE PLAN	1/22/2019
L-2	LANDSCAPE DETAILS	1/22/2019
L-3	SITE LIGHTING PLAN	1/22/2019

CERTIFICATIONS

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF MONTGOMERY

On the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me the subscriber, a Notary Public of the Commonwealth of Pennsylvania, residing in \_\_\_\_\_ County, personally appeared BRIAN J. REGLI, who acknowledged himself to be the Managing Member of Duke Real Estate Partners, LLC., and that as Managing Member, and being authorized to do so, he executed the foregoing plan by signing that the said corporation is the owner of the designated land, that all necessary approvals of the plan have been obtained and is endorsed thereon, and desire that the foregoing plan may be duly recorded.

My Commission Expires \_\_\_\_\_ Notary Public

CERTIFICATION OF TRUE OWNERSHIP

I, Brian J. Regli, Managing Member of Duke Real Estate Partners, LLC, do hereby certify that the title of the property is in the name of Duke Real Estate Partners, LLC., as recorded in the office for recording of deeds in Deed Book 1182 Page 00442, Co. Parcel No. 30-00-28960-00-8 (Blk 305, Unit 001).

MANAGING MEMBER - Brian J. Regli

TOWNSHIP SIGNATURES

Approved by the Board of Commissioners of the Township of Abington this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
President  
Attest \_\_\_\_\_  
Secretary  
\_\_\_\_\_  
Engineer

RECORDER OF DEEDS

Recorded in the Office for the Recording of Deeds, in and for the County of Montgomery, in Norristown, PA, in Plan Book \_\_\_\_\_, Page No. \_\_\_\_\_ on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

MCPC No. 18-00XX-XXX

PROCESSED and REVIEWED. Report prepared by Montgomery County Planning Commission in accordance with the Municipalities Planning Code.

Certified this date \_\_\_\_\_

For the Director  
Montgomery County Planning Commission

OWNER OF RECORD Duke Real Estate Partners, LLC SITE ADDRESS Highland Avenue COUNTY PARCEL NO. 30-00-28960-00-8 BLOCK/UNIT No. 30-305-001 DEED BOOK /PAGE No. 1182-00442

CIVIL ENGINEERS / LAND SURVEYORS

CHARLES E. SHOEMAKER, INC.

1007 EDGE HILL ROAD  
ABINGTON, PA 19001  
215-887-2165



COUNTY PARCEL NO. 30-00-28960-00-8  
BLOCK - UNIT 30-305-001  
SITE ADDRESS 1007 Edge Hill Road  
Jenkintown, PA 19046  
DEED BOOK/PAGE 05 1182 PG 0042

RECORD OWNER  
DUKE REAL ESTATE PARTNERS, LLC  
2010 County Line Road  
Huntingdon Valley, PA 19006

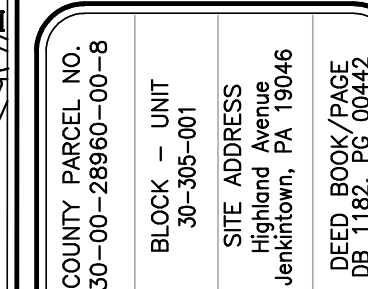
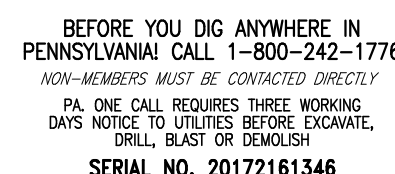
CHARLES E. SHOEMAKER, INC.  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD  
ABINGTON, PA. 19001  
PHONE: 215-887-2165  
FAX: 215-576-7791  
E-MAIL: staff@ceshoemaker.com

DATE	NO.	REVISION	BY

COVER SHEET  
WYNCOTE SUB-STATION  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE JANUARY 22, 2019  
DWG NO. A-9-404  
JOB NO. 25348C  
SHEET NO. 1 OF 14





RECORD OWNER  
DUKE REAL ESTATE  
PARTNERS, LLC  
2010 County Line Road  
Huntingdon Valley, PA 190  
2010

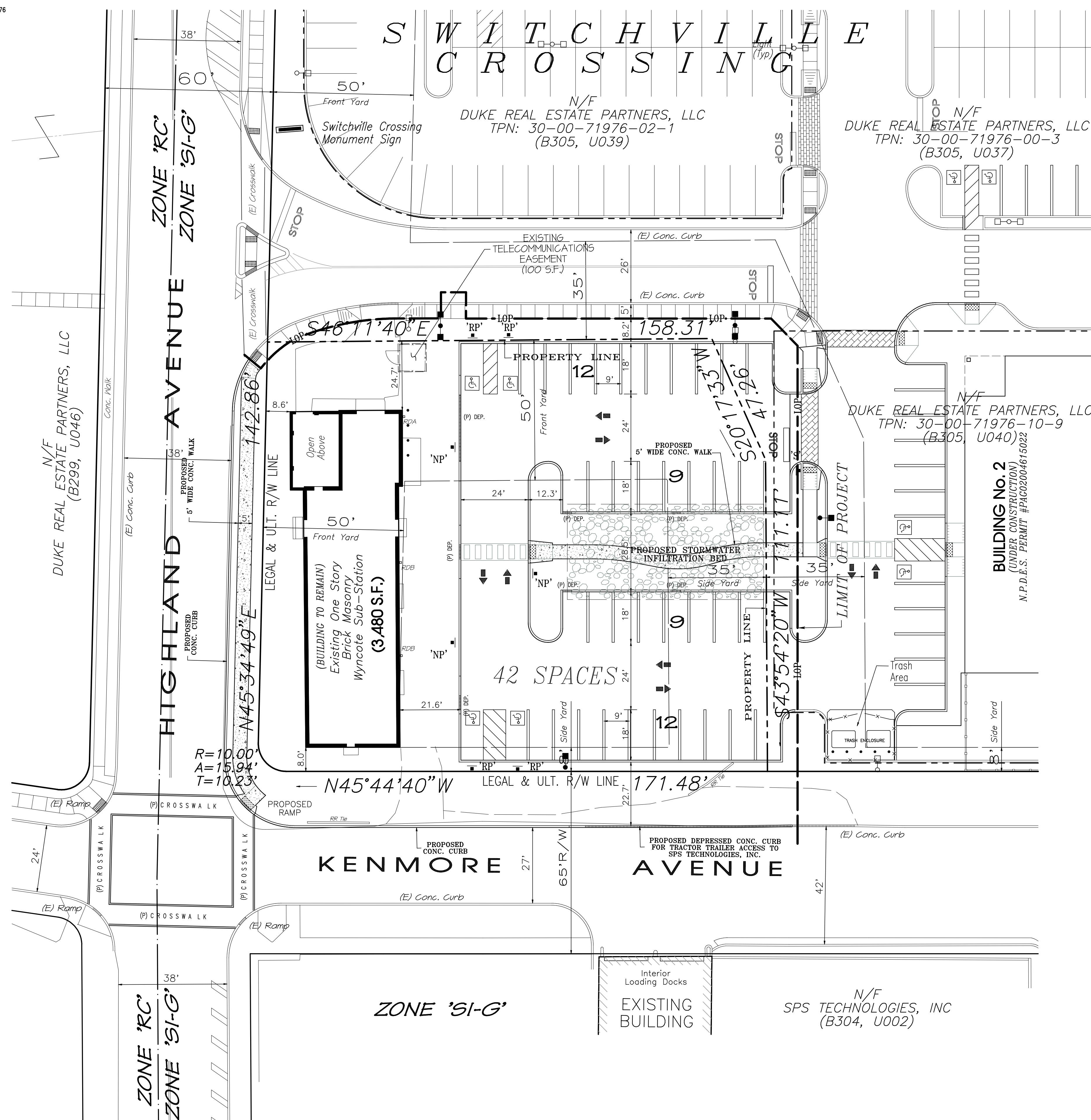
**CHARLES E. SHOEMAKER, INC.**  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABINGTON, PA. 19001  
PHONE: 215-687-2165 FAX: 215-576-7791  
E-MAIL: [staff@ceshoemaker.com](mailto:staff@ceshoemaker.com)

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SWITCHVILLE CROSSING

SWAN CREEK CROSSING  
LAND DEVELOPMENT PLAN  
WYNCOTE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
BRINGTON TOWNSHIP MONTGOMERY COUNTY PA

DATE	JANUARY 22, 2019
DWG NO.	A-9-405
JOB NO.	25348C
SHEET NO.	2 OF 14



AREA TO THE ULTIMATE RIGHT-OF-WAY LINES  
27,160 S.F. or 0.6235 AC.

<u>OWNER OF RECORD</u>	<u>SITE ADDRESS</u>	<u>COUNTY PARCEL NO.</u>	<u>BLOCK/UNIT No.</u>	<u>DEED BOOK /PAGE No.</u>
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-00442

1. Boundary and topographical information derived from deeds, plans of record, and field survey by Charles E. Shoemaker, Inc. during July 2017
2. Entire site is designated ZONE X, areas determined to be outside the 0.2% annual chance 100-year flood as shown on F.E.M.A. Flood Insurance Rate Map of Montgomery County, Community Panel 382 of 451, Map No. 42091C0382 G, effective March 2, 2016.
3. This site has access to public water from Aqua Pennsylvania, Inc. and public sewage disposal by Abington Township. Presently there are no public water or sanitary sewer facilities serving the existing former Wyncote Sub-station building.
4. Soils on-site were plotted from the National Resources Conservation Service, Web Soil Survey 2.1, National Cooperative Soil Survey Soil Map-Montgomery County, Pennsylvania.
5. The entire property is Zoned "SI-G" Suburban Industrial District - Glenside.
6. Stormwater infiltration testing was performed and evaluated by VW Consultants, ILLC. of Quakertown, PA. Site testing was done on August 28, 2018 and results summarized in the Stormwater Infiltration Testing Report dated September 4, 2018.
7. Subject property is subject to an existing telecommunications easement for pole tower and appurtenances located near Highland Avenue and south of the northeast property line.
8. Cross-easement rights for ingress, egress and utilities are granted to all parcels, identified as: tax parcel Nos. 30-00-17976-00-3 (Blik, 305, Unit 037), 30-00-17976-10-9 (Blik, 305, Unit 038), 30-00-28960-00-1 (Blik, 305, Unit 039), and 30-00-28960-00-2 (Blik, 305, Unit 001), owned by Duke Real Estate Partners, LLC, its successors and assigns, for the property known as Switchville Crossing.
9. This parcel was previously owned by PECCO Energy Company and operated as an electric sub-station for the distribution of electrical power. The site has been decommissioned and all electrical equipment removed. The existing building structure is to remain vacant until the present day use of the property is completed. The existing building plus shored parking with the adjacent Switchville Crossing development.



<u>REGULATION</u>	<u>SECTION</u>	<u>REQUIREMENT</u>	<u>EXISTING</u>	<u>PROPOSED</u>
<b>USE REGULATIONS:</b>	Sec. 1201. Sec. 2313.A.		Public Utility	Shared Parking w/ Shared Access

\* INDICATES EXISTING NON-CONFORMING CONDITION

BUFFERS:					
"SI-G" BUFFER REQUIREMENTS	Sec. 2403.B.7.d				
Front Yard Buffers (4)	Sec. 2403.B.7.d.[1]	8 Ft.		19.9 Ft.	8 Ft. +
Side & Rear Yard Buffers	Sec. 2403.B.7.d.[2]	3 Ft.		0 Ft. *	3 Ft.
Residential Zoning Districts	Sec. 2403.B.7.d.[3]	30 Ft.		N/A	N/A

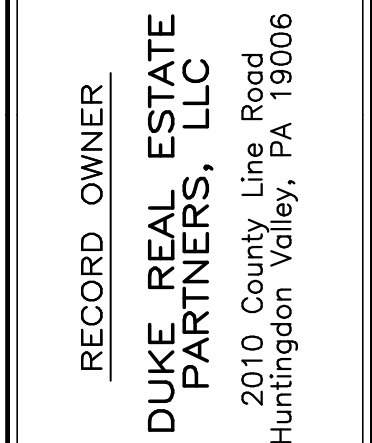
- WAIVERS REQUESTED:**

- ART. XXIII: PARKING & TRANSPORTATION: Sec. 2300.

Additional Provisions for Shared Parking Facilities: Sec. 2313.F.1.

1. A parking complex (4 or more individual lots utilizing shared parking facilities) and each use within the complex may apply the parking reduction principal described herein. A parking complex may only be created between uses when a complete, shared, internal access driveway is established. In this case, not all uses have direct street access. The internal access drive may be located in the front, side or rear of the buildings.

PA ONE CALL LIST OF UNDERGROUND USERS ABINGTOWN TOWNSHIP Serial No. 20172161346		Date Contacted: 08-04-2017
NAME OF USER	USERS ADDRESS	CONTACTED PERSON
Abington Township	1176 Old York Road Amarin, PA 19001	Scott Marlin smarlin@abington.org
Comcast	4480 Wayne Avenue Philadelphia, PA 19140	Robert Harvey bob.harvey@comcast.com
PECO ENERGY c/o USCI	450 S. Henderson Road, Suite B King of Prussia, PA 19406	Nikkie Simpkins nikkiesimpkins@usccilc.com
Abington Township Wastewater	1000 Fitzwattertown Road Abington, PA 19001	Gregory Wrigley gwigley@abington.org
Aqua Pennsylvania, Inc.	762 W. Lancaster Avenue Bryn Mawr, PA 19010	Steve Pizzi spizzi2@aquamerica.com
Verizon Pennsylvania, LLC	1050 Virginia Drive Fort Washington, PA 19034	Laura Lippincott laura.d.lippincott@one.verizon.com
Level 3 Communications, LLC	1025 Eldorado BLVD BLDG Broomfield, CO. 80021	Level 3 Operator Personnel rel@level3.com
Southeastern PA Transportation Authority	1234 Market St. 12th FL. Philadelphia PA 19107	Damir Montyados dmontyados@septa.org

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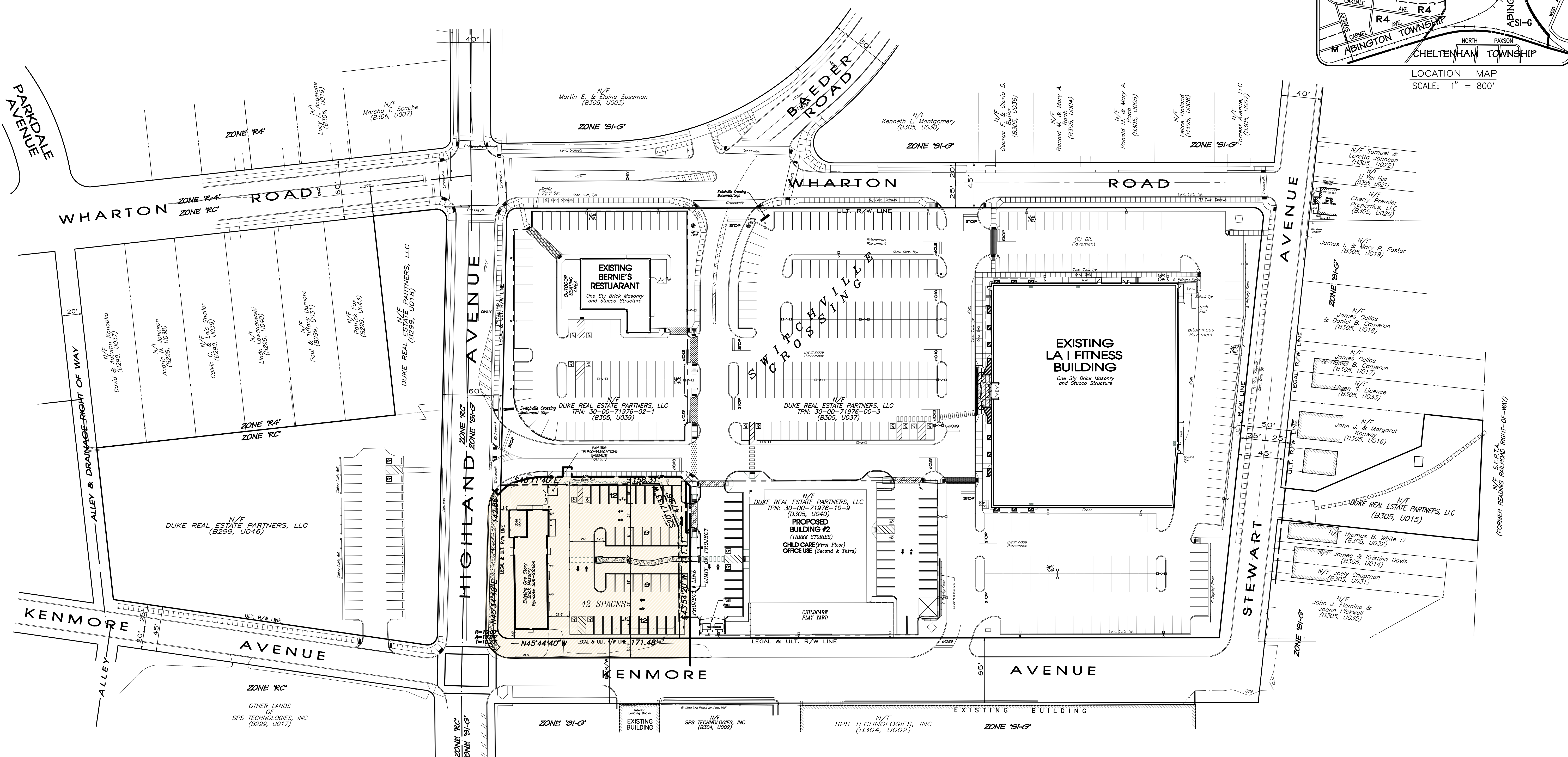
DATE	JANUARY 22, 2019
DWG NO.	A-9-406
JOB NO.	<b>25348C</b>
SHEET NO.	<b>3 OF 14</b>

SWITCHVILLE CROSSING

AREA TO THE ULTIMATE RIGHT-OF-WAY LINES  
27,160 S.F. or 0.6235 AC.

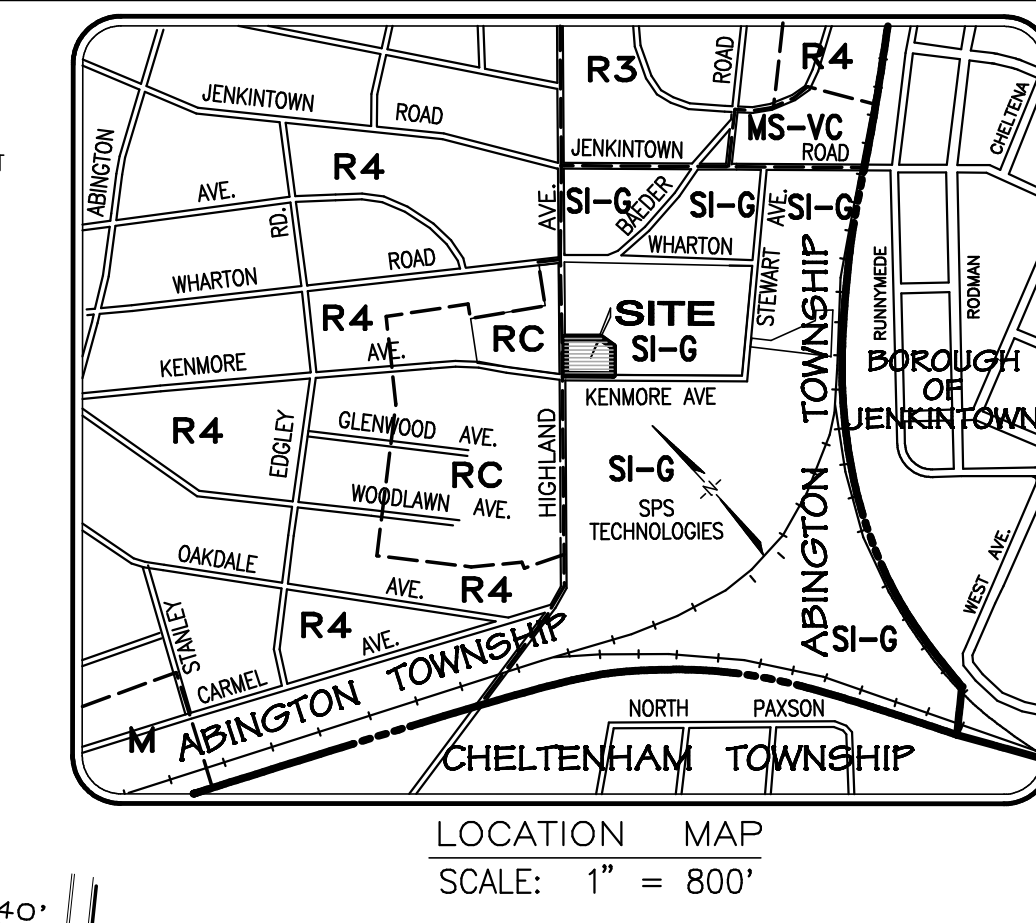


PARKDALE AVENUE



**LEGEND**

○ I.P. P.O.	IRON PIN FOUND
□ CON. P.O.	CONCRETE MONUMENT FOUND
■ EX. FENCE	EXISTING FENCE LINE
○ EX. UTILITY	EXISTING UTILITY POLE
○ EX. TRAFFIC	EXISTING TRAFFIC SIGNAL POLE
○ EX. FIRE	EXISTING FIRE HYDRANT
○ EX. LAMP	EXISTING LAMP POST
○ EX. STREET	EXISTING STREET SIGN
○ EX. STORM	EXISTING STORM SEWER
■ PROJ. AREA	PROPOSED PROJECT AREA



**GARY A. TILFORD**  
REGISTERED PROFESSIONAL  
LAND SURVEYOR  
SU-033144-E

COUNTY PARCEL NO. 30-00-28960-00-8  
BLOCK - UNIT 30-305-001  
SITE ADDRESS 2010 County Line Road  
Jenkintown, PA 19046  
DEED BOOK/PAGE No. DB 1182, PG 0042

**RECORD OWNER**  
**DUKE REAL ESTATE PARTNERS, LLC**  
2010 County Line Road  
Huntingdon Valley, PA 19006

**CHARLES E. SHOEMAKER, INC.**  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABINGTON, PA. 19001  
PHONE: 215-687-2165 FAX: 215-576-7791  
E-MAIL: staff@ceshoemaker.com

SCALE 1" = 50'

DATE	NO.	REVISION	BY

**SWITCHVILLE ORIENTATION PLAN**  
**WYNCOTE SUB-STATION**  
**Highland Avenue**  
PREPARED FOR  
**DUKE REAL ESTATE PARTNERS, LLC**  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

- NOTES:**
- Topographic survey of premises and surrounding area prepared for Duke Real Estate Partners, LLC by Charles E. Shoemaker, Inc. during July 2017.
  - This site is designated ZONE X, areas determined to be outside the 0.2% annual chance 100-year flood as shown on F.E.M.A. Flood Insurance Rate Map of Montgomery County, Community Panel 382 of 451, Map No. 4209100382, effective March 2, 2016.
  - This site has access to public water from Aqua Pennsylvania, Inc. and public sewage disposal by Abington Township.
  - The parcel is Zoned "SI-G" Suburban Industrial Glenside District.

**SITE AREA**  
AREA TO THE ULTIMATE RIGHT-OF-WAY LINES

OWNER OF RECORD	SITE ADDRESS	COUNTY PARCEL NO.	BLOCK/UNIT No.	DEED BOOK /PAGE No.
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-0042

**27,160 S.F. or 0.6235 AC.**

DATE JANUARY 22, 2019  
DWG NO. A-9-407  
JOB NO. 25348C  
SHEET NO. 4 OF 14

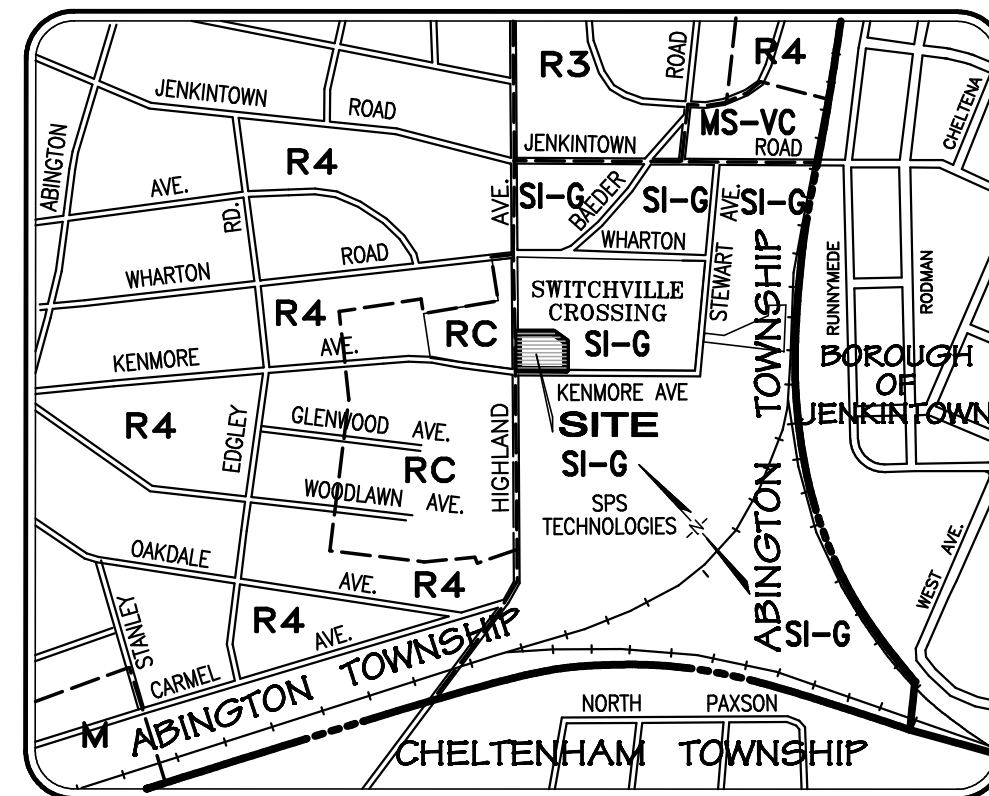




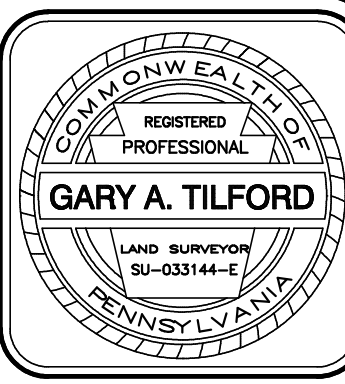
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-243-1776  
HOWEVER, YOU MUST BE CONTACTED DIRECTLY BY PA. ONE CALL REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE EXCAVATE, DRILL, BOLT OR CHUCKER.  
SERIAL NO. 20172161346

## LEGEND

EXISTING	
226	CONTOUR LINE
+226.23	SPOT ELEVATION
TC-226.23	TOP & BOTTOM CURB
BC-225.73	LIGHT STD.
□	FENCE LINE
○	UTILITY POLE
○	WATER VALVE
○	WATER CURB STOP
○	GAS VALVE
○	FIRE HYDRANT
○	EXISTING SIGN
○	SANITARY SEWER
○	STORM SEWER
○	OVERHEAD WIRE
○	ELECTRIC CONDUIT
○	GAS MAIN
○	WATER MAIN
○	COMMUNICATIONS CONDUIT
○	SANITARY LATERAL
○	WATER SERVICE



LOCATION MAP  
SCALE: 1" = 800'



COUNTY PARCEL NO. 30-00-28960-00-8  
BLOCK & UNIT 30-305-001  
SITE ADDRESS 2010 County Line Road  
Jenkintown, PA 19046  
DEED BOOK/PAGE DB 1182 PG 0042  
RECORD OWNER  
DUKE REAL ESTATE PARTNERS, LLC  
Huntingdon Valley, PA

CHARLES E. SHOEMAKER, INC.  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABBINGTON, PA. 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
E-MAIL: staff@ceshoemaker.com  
SCALE 1" = 20'

DATE	NO.	REVISION	BY

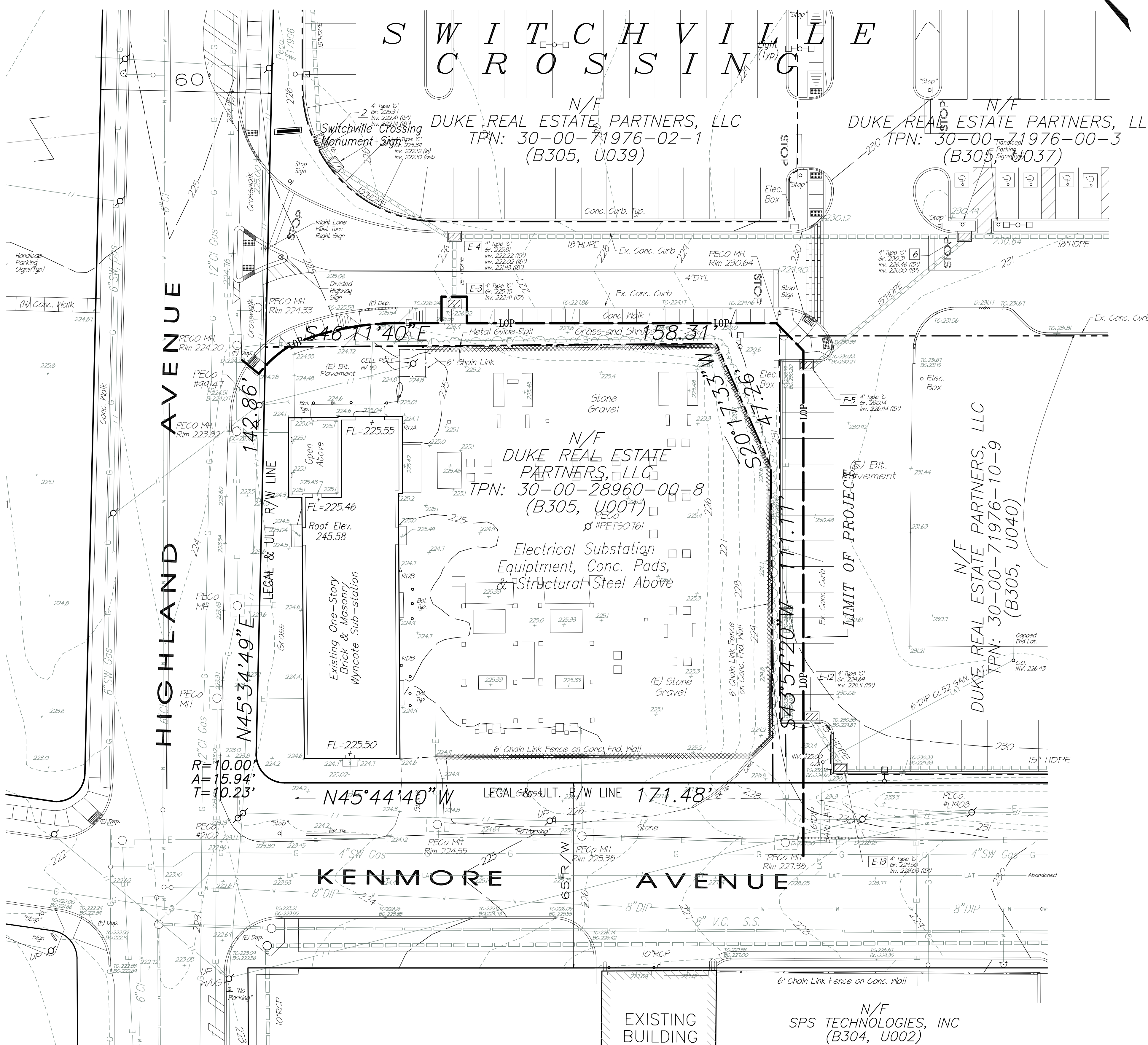
SWITCHVILLE CROSSING  
EXISTING FEATURES PLAN  
WYNCOATE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABBINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE JANUARY 22, 2019  
DWG NO. A-9-408  
JOB NO. 25348C  
SHEET NO. 5 OF 14

## SITE AREA

AREA TO THE ULTIMATE RIGHT-OF-WAY LINES  
27,160 S.F. or 0.6235 AC.

OWNER OF RECORD	SITE ADDRESS	COUNTY PARCEL NO.	BLOCK/UNIT NO.	DEED BOOK /PAGE NO.
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-0042



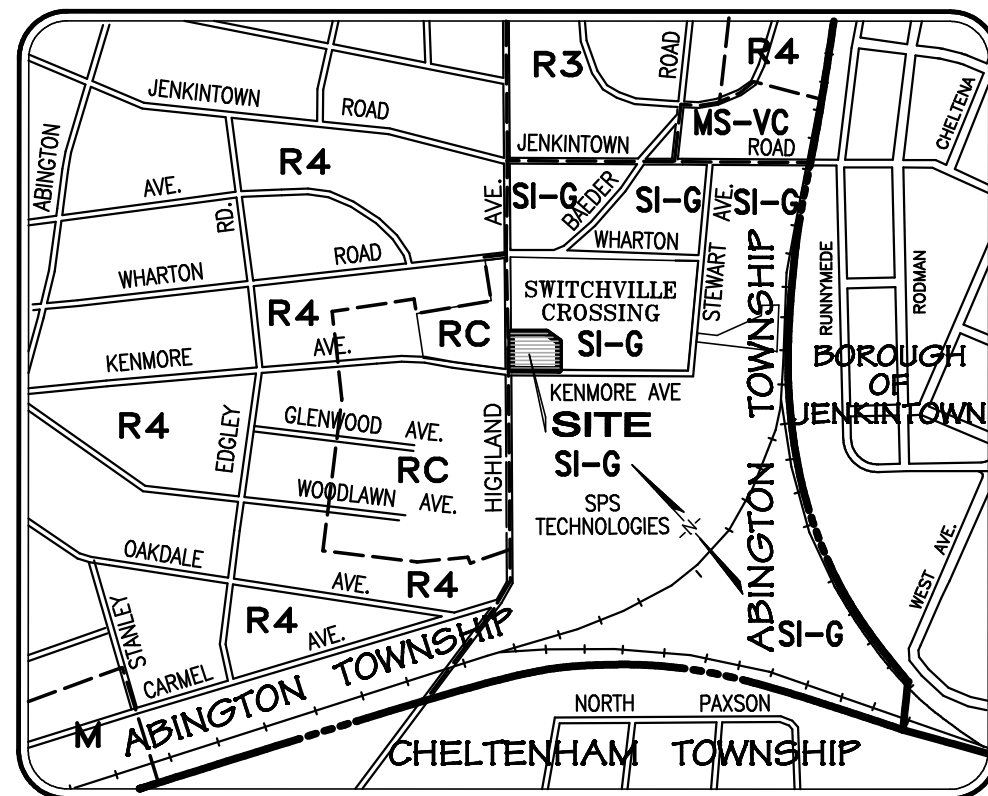
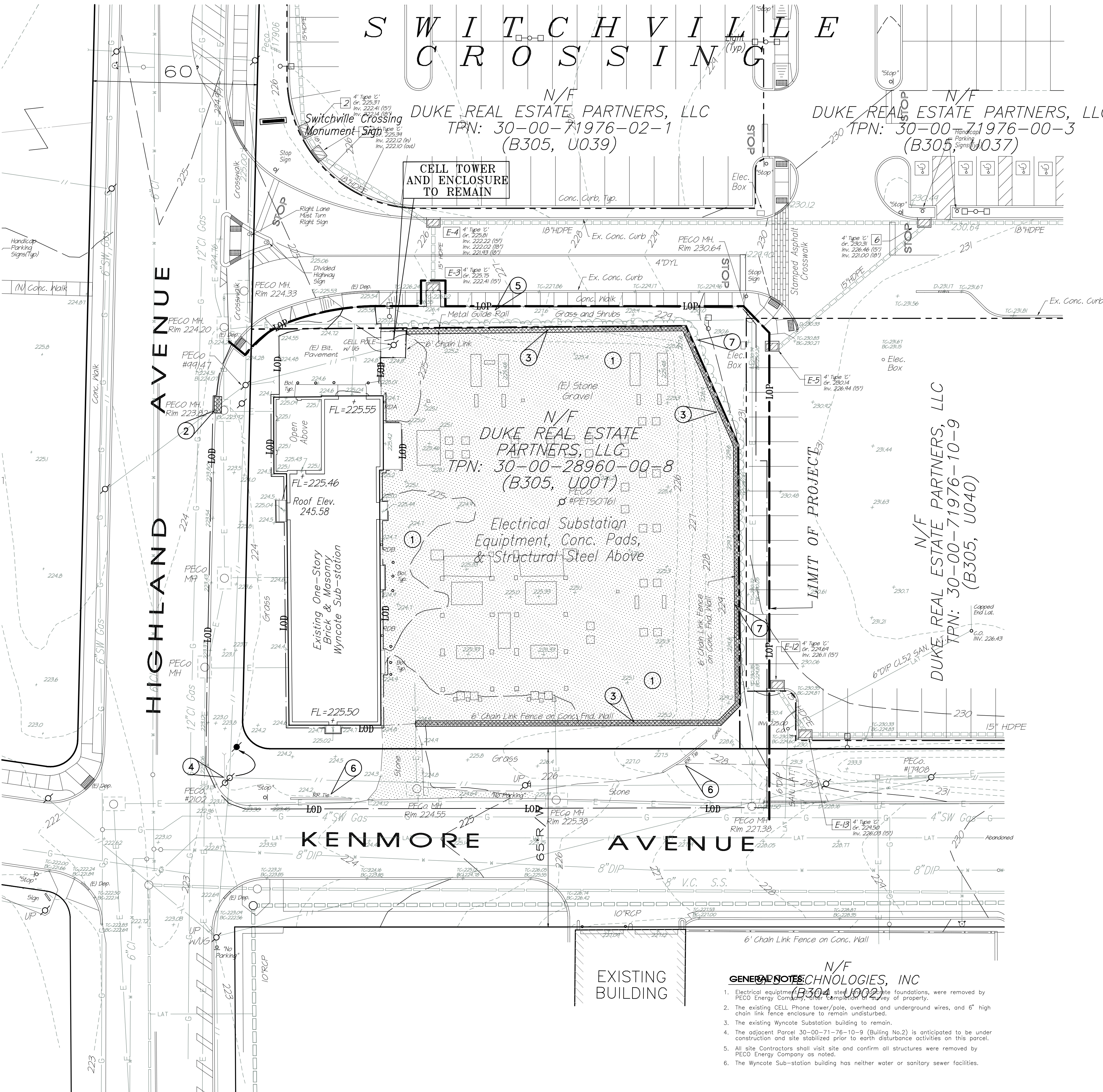
## GENERAL NOTES:

- Boundary and topographical information derived from deeds, plans of record, and field survey by Charles E. Shoemaker, Inc. during July 2017.
- Entire site is designated ZONE X, areas determined to be outside the 0.2% annual chance 100-year flood as shown on F.E.M.A. Flood Insurance Rate Map of Montgomery County, Community Panel 302 of 451, Map No. 42081C0382 C, effective March 2, 2016.
- This site has access to public water from Aqua Pennsylvania, Inc. and public sewage disposal by Abington Township. Presently there are no public water or sanitary sewer facilities serving the existing former Wyncoate Sub-station building.
- Soils on-site were plotted from the National Resources Conservation Service, Web Soil Survey 2.1, National Cooperative Soil Survey Soil Map-Montgomery County, Pennsylvania.
- The entire property is Zoned "SI-G" Suburban Industrial District - Glenside.
- Stormwater infiltration testing was performed and evaluated by VW Consultants, LLC, of Quakertown, PA. Site testing was done on August 28, 2018, and results summarized in the Stormwater Infiltration testing Report dated September 4, 2018.
- Subject property is subject to an existing telecommunications easement for pole tower and appurtenances located near Highland Avenue and south of the northeast property line.





BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA CALL 1-800-242-1776  
HOWEVER, IF YOU ARE A CONTRACTOR, DIRECTLY  
PA ONE CALL REQUIRES THREE WORKING  
DAYS NOTICE TO UTILITIES BEFORE EXCAVATE,  
DRILL, BORE OR CUMULUS  
SERIAL NO. 20172161346



LOCATION MAP  
SCALE: 1" = 800'

### LEGEND

- |  |  |
|--|--|
| 226-<br>+226.23<br>TC-226.23<br>226.23 | EXISTING CONTOUR LINE<br>EXISTING SPOT ELEVATION<br>EXISTING TOP & BOTTOM CURB |
| □-□                                    | EXISTING LIGHT STD.  |
| x                                      | EXISTING FENCE LINE  |
| o W                                    | EXISTING UTILITY POLE  |
| o WS                                   | EXISTING WATER VALVE   |
| o V                                    | EXISTING GAS VALVE   |
| o TH                                   | EXISTING FIRE HYDRANT  |
| o                                      | EXISTING SIGN  |
| o                                      | EXISTING SANITARY SEWER  |
| o                                      | EXISTING STORM SEWER   |
| o                                      | EXISTING OVERHEAD WIRE   |
| o                                      | EXISTING ELECTRIC CONDUIT  |
| o                                      | EXISTING GAS MAIN  |
| o                                      | EXISTING WATER MAIN  |
| o                                      | EXISTING COMMUNICATIONS CONDUIT  |
| o                                      | EXISTING SANITARY LATERAL  |
| o                                      | EXISTING WATER SERVICE   |
- |     |   |
|-----|---|
| 3   | CONCRETE CURB/WALL TO BE REMOVED<br>PROPOSED FEATURE TO BE DEMOLISHED<br>(SEE THIS SHEET FOR DEMOLITION LIST) |
| 3   | STONE PAVEMENTS TO BE<br>REMOVED & DISPOSED AS NECESSARY  |
| LOP | LIMIT OF PROJECT (LOP)  |
| LDD | LIMIT OF DISTURBANCE (LDD)  |

### LIST OF DEMOLITION ITEMS:

1. STONE/GRAVEL TO BE REMOVED AS NECESSARY
2. REMOVE CONCRETE CURB
3. REMOVE CONCRETE PERIMETER WALL AND FENCE
4. RELOCATE PECO POLE #2102
5. REMOVE METAL GUIDE RAIL SYSTEM
6. REMOVE WOOD RR TIE
7. REMOVE PLANTINGS AND HEDGE ROW

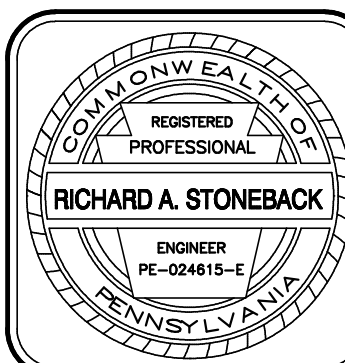
### DEMOLITION NOTES:

1. Contractor shall visit site prior to bid and investigate items requiring demolition to determine full extent of work required. Materials are noted generally on this plan.
2. Structures are noted generally on this plan. All concrete, lights, signs, trees, bituminous paving etc. and all miscellaneous debris materials demolished shall not be buried on the subject site and removed. All excavated material and debris (solid waste) shall be disposed of in accordance with all Township, County, State, and Federal laws and applicable codes. The Contractor shall properly remove and dispose of hazardous/unusable material off-site in accordance with all applicable codes, ordinances, and laws.
3. Contractor shall ensure all permits and approvals have been obtained and valid. Copies of approved Erosion Control Plans, Details, and Reports are to remain on-site for review. Erosion and sedimentation controls must be in place prior to commencing excavation activities.
4. Tree protection fencing shall be in place, inspected, and approved by the Township Landscape Architect prior to any site disturbance. See Landscape Plans for tree protection fencing details and installation guidelines.
5. This plan is to be used in conjunction with the Erosion Control Plan, Erosion Control Detail Plan and "Stormwater Management And Erosion Control Narrative".
6. All Maintenance and Protection of Traffic during construction shall be in accordance with applicable Figures as provided in PennDOT Publication 213, "Work Zone Traffic Control Guidelines", January 2006, or most current.
7. The General Site Contractor shall be responsible for the coordination of interrupted utility services if necessary, including ELECTRIC, TELEPHONE, GAS, AND WATER Etc. between the Owner, and the local utility companies. All utilities and services, including but not limited to gas, water, electric, sanitary, telephone, cable, fiber optic cable, etc. within the limits of disturbance, shall be vertically and horizontally located. The Contractor shall use and comply with the requirements of the applicable utility notification system to locate all the underground utilities.
8. Existing underground utility pipes to be abandoned shall be completely removed unless specifically noted otherwise by the Township engineer or utility provider.
9. Charles E. Shoemaker, Inc. assumes no responsibility for the information shown or not shown regarding underground storage tanks and environmental issues.
10. Site materials which are removed through demolition such as bituminous paving shall be recycled, or disposed of in accordance with the Department of Environmental Protection Solid Waste Management Regulations per 25 Pa Code 260.1 et seq., 271.1 et seq., and 287.1 et seq. The Contractor shall not illegally bury, dump, or discharge any building material or waste at this site.
11. A complete inspection for contaminants, by a licensed environmental testing agency, of all buildings and/or structures to be removed shall be done in accordance with all applicable Local, State, and Federal environmental regulations. All environmental work including hazardous materials, soils, asbestos, or other referenced or implied herein is solely the responsibility of the Owner's Environmental Consultant.
12. In the absence of specific requirements, the Contractor shall perform earth movement activities, demolition and removal of all foundation walls, footings, and other materials within the limits of disturbance in accordance with direction by Owner's Geotechnical Engineer.
13. The Contractor is responsible to safeguard the site as necessary to perform the demolition in such a manner as to prevent the unauthorized entry of persons at any time.
14. The Demolition Contractor is responsible for oil repairs to oil items that are to remain as a result of his activities.

### SITE AREA

AREA TO THE ULTIMATE RIGHT-OF-WAY LINES  
27,160 S.F. or 0.6235 AC.

OWNER OF RECORD	SITE ADDRESS	COUNTY PARCEL NO.	BLOCK/UNIT NO.	DEED BOOK /PAGE No.
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-00442



COUNTY PARCEL NO.  
30-00-28960-00-8  
BLOCK - UNIT  
30-305-001  
SITE ADDRESS  
Jenkintown, PA 19046  
DEED BOOK/PAGE  
DB 1182 PG 00442

RECORD OWNER  
DUKE REAL ESTATE  
PARTNERS, LLC  
2010 County Line Road  
Huntingdon Valley, PA

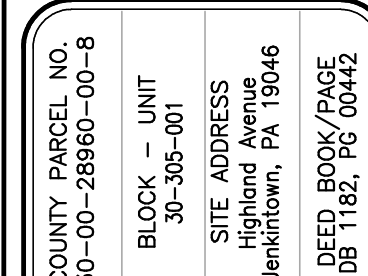
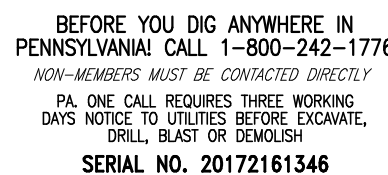
CHARLES E. SHOEMAKER, INC.  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABBINGTON, PA, 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
E-MAIL: [staff@ceshoemaker.com](mailto:staff@ceshoemaker.com)  
SCALE 1" = 20'

DATE	NO	REVISION	BY

SWITCHVILLE CROSSING  
DEMOLITION PLAN  
WYNOCOTE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABBINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE  
JANUARY 22, 2019  
DWG NO.  
A-9-409  
JOB NO.  
25348C  
SHEET NO.  
6 OF 14





RECORD OWNER  
DUKE REAL ESTATE  
PARTNERS, LLC  
2010 County Line Road  
Lundtindon Valley, PA 19006

**CHARLES E. SHOEMAKER, INC.**  
*ENGINEERS & SURVEYORS*  
1007 EDGE HILL ROAD ABINGTON, PA. 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
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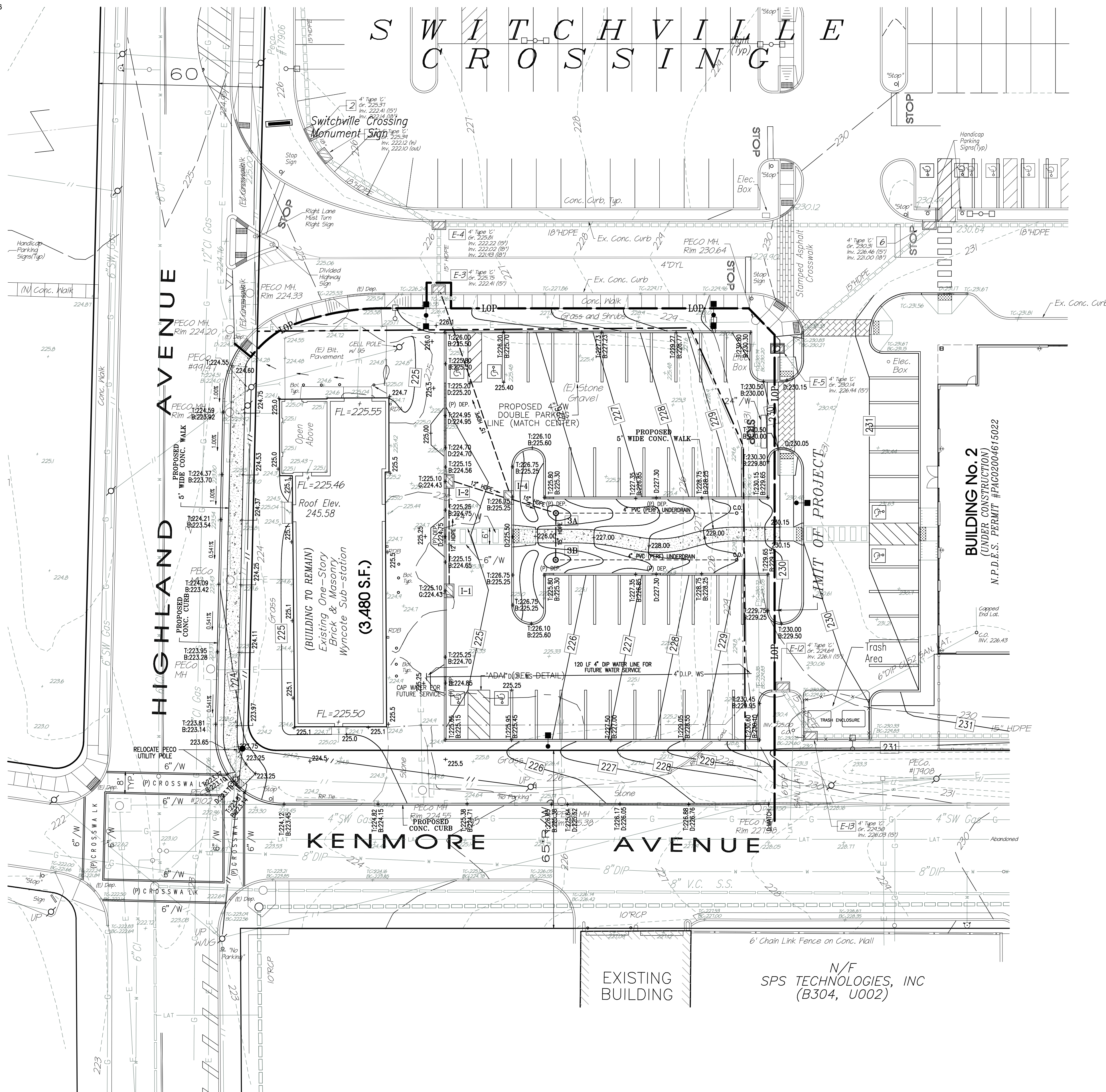
**GRADING PLAN**  
*WYNCOTE SUB-STATION*  
**Highland Avenue & Kenmore Avenue**  
PREPARED FOR  
**DUKE REAL ESTATE PARTNERS, LLC**  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE  
JANUARY 22, 2019

DWG NO.  
A-9-410

JOB NO.  
**25348C**

SHEET NO.  
**7 OF 14**



## LEGEND

EXISTING		PROPOSED	
--- 226 ---	CONTOUR LINE	--- 226 ---	CONTOUR LINE
226-23	SPOT ELEVATION	+ 226.23	SPOT ELEVATION
+ 226-23	TOP & BOTTOM CURB ELEV.	+ 1296.23	TOP & BOTTOM CURB ELEV.
+ 226-23		B 225.73	
□-◆-□	LIGHT STD.	+	
—X—X—	FENCE LINE	⊗	RAIN GARDEN DRAIN
○ W	UTILITY POLE	———	CURB DEPRESSION
○ W	WATER VALVE	(P) DEP.	CONCRETE WALK
○ S	WATER CURB STOP	82333	ADA DETECTABLE WARNING SURFACE
○ S	GAS VALVE	⬇	UTILITY POLE
⊗ H	FIRE HYDRANT	//	OVERHEAD WIRE
q	EXISTING SIGN	—LOP	LIMIT OF PROJECT
□ □ □ □	SANITARY SEWER	■ — ■	PROPOSED LIGHT STD.
□ □ □ □	STORM SEWER		
//	OVERHEAD WIRE		
E	ELECTRIC CONDUIT		
G	GAS MAIN		
W	WATER MAIN		
COM	COMMUNICATIONS CONDUIT		
—LAT	SANITARY LATERAL		
WS	WATER SERVICE		

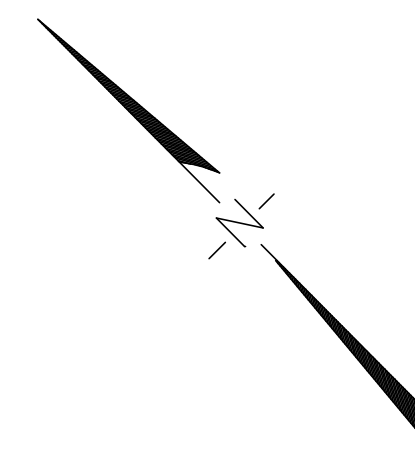
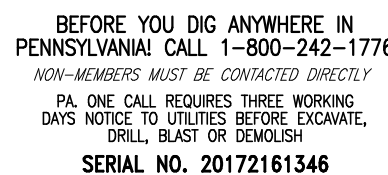
## SITE AREA

AREA TO THE ULTIMATE RIGHT-OF-WAY LINES

27,160 S.F. or 0.6235 AC.

<u>OWNER OF RECORD</u>	<u>SITE ADDRESS</u>	<u>COUNTY PARCEL NO.</u>	<u>BLOCK/UNIT No.</u>	<u>DEED BOOK /PAGE No.</u>
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-0044





EXISTING		PROPOSED	
--- 226- 226-23	CONTOUR LINE SPOT ELEVATION	--- 226- + 226.23	CONTOUR LINE SPOT ELEVATION
--- TC 226-23 BC 225.19	TOP & BOTTOM CURB ELEV.	--- 8226-23 + 8225.73	TOP & BOTTOM CURB ELEV.
□-◆-□	LIGHT STD.	--- □	STORM SEWER
--- FENCE LINE		--- (○)	RAIN GARDEN DRAIN
--- UTILITY POLE		--- (P) DEP.	CURB DEPRESSION
○ W	WATER VALVE	--- [Hatched Box]	CONCRETE WALK
○ WS	WATER CURB STOP	--- 8333	ADA DETECTABLE WARNING SURFACE
○ Q	GAS VALVE	--- (○)	UTILITY POLE
--- FIRE HYDRANT		--- //	OVERHEAD WIRE
--- EXISTING		--- [Line with -LOP]	LIMIT OF PROJECT
--- SANITARY SEWER		--- [Line with -LOP]	PROPOSED LIGHT STD.
--- STORM SEWER			
--- OVERHEAD WIRE			
--- ELECTRIC CONDUIT			
--- GAS MAIN			
--- WATER MAIN			
--- COMMUNICATIONS CONDUIT			
--- SANITARY LATERAL			
--- WATER SERVICE			

FROM	TO	LENGTH	DIA.	TYPE	SLOPE
<b>I-1</b>	<b>I-2</b>	36 LF	12"	HDPE	00.0050 FT/FT
<b>I-2</b>	<b>I-4</b>	22 LF	12"	HDPE	00.0050 FT/FT
<b>I-4</b>	<b>3A</b>	16 LF	15"	HDPE	00.0062 FT/FT
<b>3A</b>	<b>3B</b>	16 LF	12"	HDPE	00.0000 FT/FT
<b>I-4</b>	<b>E-3</b>	76 LF	15"	HDPE	00.0050 FT/FT

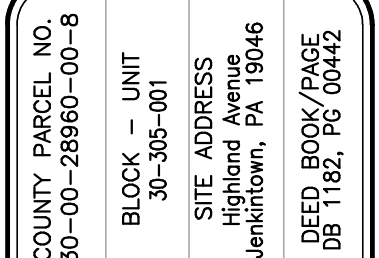
<p>Structure No: <b>[1-1]</b></p> <p>4" TYPE "C" INLET</p> <p>GR. 222.52</p> <p>SR. 222.52</p> <p>IN. 222.35 (12"out to I-2)</p>	<p>Structure No: <b>[3A]</b></p> <p>18" NOLP/SLAT DRAIN BASIN</p> <p>DOAM GRATE</p> <p>GR. 225.23</p> <p>GR. 224.75</p> <p>IN. 221.90 (15" in/out)</p>
<p>Structure No: <b>[1-2]</b></p> <p>4" TYPE "C" INLET</p> <p>SR. 222.52</p> <p>IN. 221.87 (12" in/out to I-4)</p> <p>IN. 221.87 (Sump)</p>	<p>Structure No: <b>[3B]</b></p> <p>18" NOLP/SLAT DRAIN BASIN</p> <p>DOAM GRATE</p> <p>GR. 225.23</p> <p>GR. 224.75</p> <p>IN. 221.90 (15" in/out)</p>
<p>Structure No: <b>[1-4]</b></p> <p>4" TYPE "C" INLET</p> <p>SR. 222.52</p> <p>GR. 222.52</p> <p>IN. 222.00 (12" in to 3A)</p> <p>IN. 222.00 (15" out to I-2)</p>	<p>Structure No: <b>[E-3]</b></p> <p>4" TYPE "C" INLET</p> <p>GR. 225.23</p> <p>SR. 222.52</p> <p>IN. 222.41 (15" out to I-4)</p> <p>IN. 222.41 (15" in from E-4)</p>

NYLOPLAST DRAIN w/ DOME GRATE	= 225.25
GRADE AT YARD INLET	= 224.75
TOP OF STONE INFILTRATION BED	= 223.50
INV. 4" DIAMETER UNDERDRAIN	= 222.94
INV. 15" HDPE TO INLET 4 AND 15" PERF. EQUILIZATION PIPE	= 221.90
BOTTOM OF STONE INFILTRATION BED	= 220.80

1. Boundary and topographical information derived from deeds, plans of record, and field survey by Charles E. Shoemaker, Inc. during July 2017.
2. The design of the proposed residential subdivision is to be outside the 0.2% chance flood, 100-year flood as shown on FEMA, Flood Insurance Rate Map of Montgomery County, Community Plan 352 of A.S.I. Map No. 42091010382 G, effective March 2, 2016.
3. The site is located in the unincorporated area of Montgomery County, Pennsylvania, and is not subject to the jurisdiction of the Pennsylvania Department of Environmental Protection by Abington Township. Presently there are no public, water or sanitary sewer facilities serving the existing former Wyncote Sub-station building.
4. Soils on-site were plotted from the National Resources Conservation Service, Web Soil Survey, National Soil Geographic Data Base, and the Pennsylvania Department of Environmental Protection.
5. The entire property is Zoned "SI-G" Suburban Industrial District – Glenside.
6. Stormwater infiltration testing was performed and evaluated by VW Consultants, LLC, of Quakertown, PA. Site testing was done on August 26, 2018, and results summarized in the attached Stormwater Infiltration Test Report.

AREA TO THE ULTIMATE RIGHT-OF-WAY LINES  
27,160 S.F. or 0.6235 AC

<u>OWNER OF RECORD</u>	<u>SITE ADDRESS</u>	<u>COUNTY PARCEL NO.</u>	<u>BLOCK/UNIT No.</u>	<u>DEED BOOK /PAGE No.</u>
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-0044



RECORD OWNER

**DUKE REAL ESTATE  
PARTNERS, LLC**

2010 County Line Road  
Huntingdon Valley, PA 19006

**CHARLES E. SHOEMAKER, INC.**  
*ENGINEERS & SURVEYORS*  
1007 EDGE HILL ROAD ABINGTON, PA. 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
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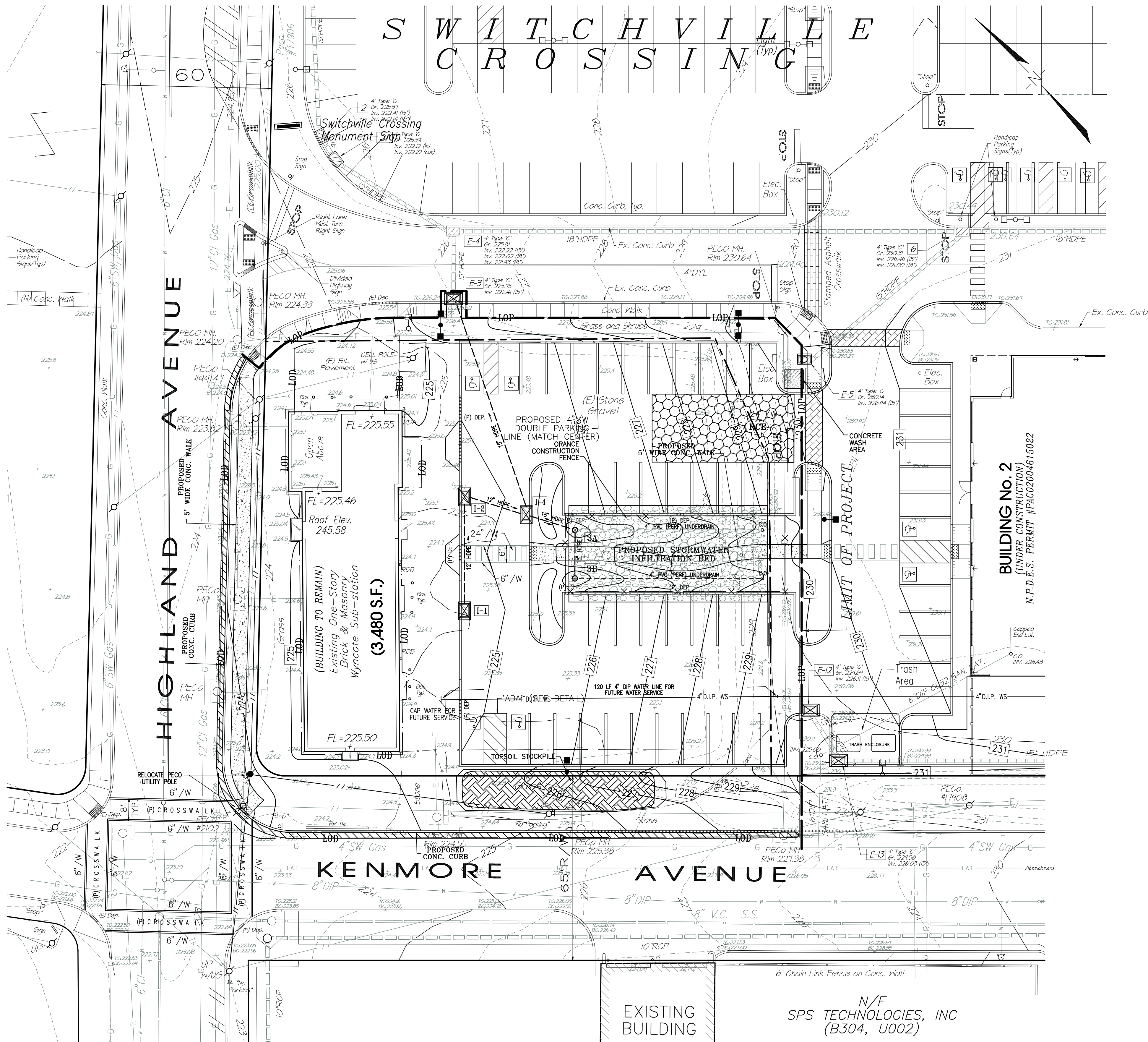
SWITCHVILLE CROSSING

UTILITY PLAN  
WYNCOTE SUB-STATION

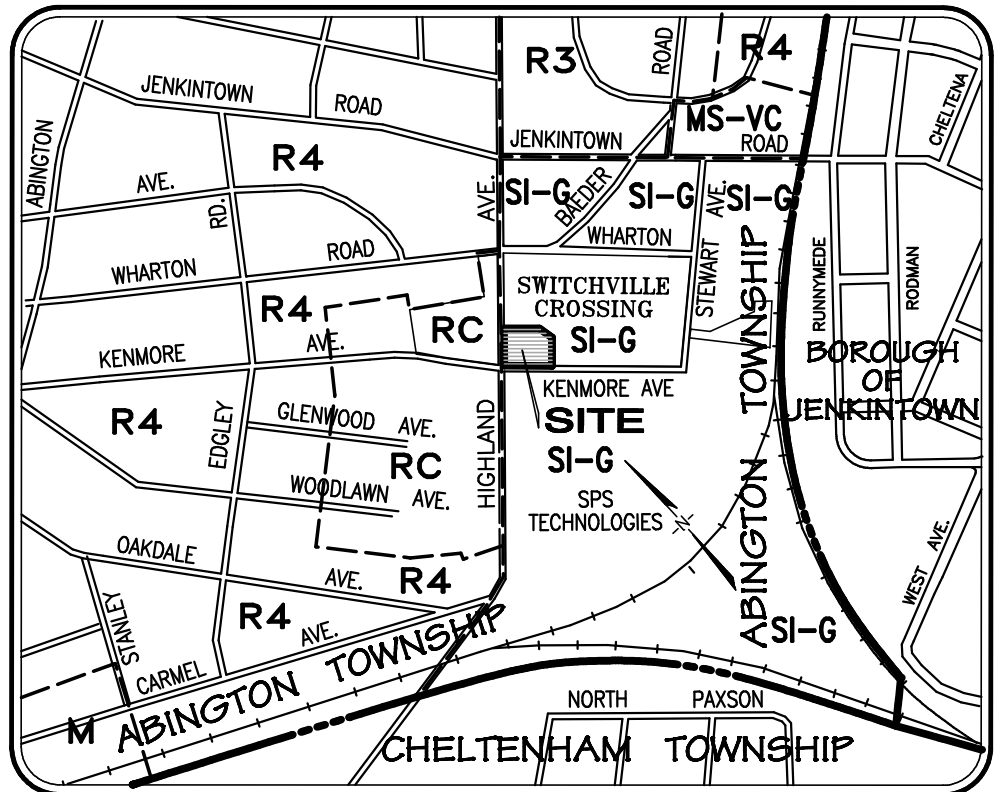
**Highland Avenue & Kenmore Avenue**  
**DUKE REAL ESTATE PARTNERS, LLC**  
 PREPARED FOR  
 ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE	JANUARY XX, 2019
DWG NO.	A-9-410
JOB NO.	<b>25348C</b>
SHEET NO.	<b>8 OF 14</b>





EXISTING		PROPOSED	
226	CONTOUR LINE	226	CONTOUR LINE
226.23	SPOT ELEVATION	226.23	SPOT ELEVATION
+ TC-226.23	TOP & BOTTOM CURB ELEV.	+ T-226.23	TOP & BOTTOM CURB ELEV.
BC-225.79	LIGHT STD.	B-225.73	LIGHT STD.
□-□	FENCE LINE	□-□	STORM SEWER
○	UTILITY POLE	○	RAIN GARDEN DRAIN
○ WS	WATER VALVE	○	CURB DEPRESSION
○ WS	WATER CURB STOP	(P) DEP.	CONCRETE WALK
○ W	GAS VALVE	82233	ADA DETECTABLE WARNING SURFACE
○ W	FIRE HYDRANT	○	UTILITY POLE
○	EXISTING SIGN	○	OVERHEAD WIRE
○	STORM SEWER	○	LIMIT OF PROJECT
○	OVERHEAD WIRE	○	LIMIT OF DISTURBANCE
○	ELECTRIC CONDUIT	○	PROPOSED LIGHT STD.
○	GAS MAIN		
○	WATER MAIN		
○	COMMUNICATIONS CONDUIT		
○	SANITARY LATERAL		
○	WATER SERVICE		



LOCATION MAP  
SCALE: 1" = 800'



COUNTY PARCEL NO. 30-00-28860-00-8  
BLOCK - UNIT 305-001  
SITE ADDRESS 2010 County Line Road  
Jenkintown, PA 19046  
DEED BOOK PAGE DB 1182 PG 0442  
RECORD OWNER DUKE REAL ESTATE PARTNERS, LLC  
Huntingdon Valley, PA

**IMPORT OR EXPORT OF FILL**  
THIS SITE MAY REQUIRE EXPORTATION OF FILL. THE CONTRACTOR WILL BE RESPONSIBLE FOR TRANSPORTING EXCESS MATERIALS TO A PROPERLY PERMITTED SITE. THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND DETERMINATION OF "CLEAN FILL" WILL REST WITH THE CONTRACTOR.  
**CLEAN FILL** IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE "WATERS OF THE COMMONWEALTH" UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).  
**CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE:** FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLE FP-1a AND FP-1b FOUND IN THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".  
**ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FORM FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL. A COPY OF FORM-001 CAN BE FOUND AT THE END OF THESE INSTRUCTIONS.**  
**ENVIRONMENTAL DUE DILIGENCE:** THE APPLICANT MUST PERFORM ENVIRONMENTAL DUE DILIGENCE TO DETERMINE IF THE FILL MATERIALS ASSOCIATED WITH THE PROJECT QUALIFY AS CLEAN FILL. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY US HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS, ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF A REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEPARTMENT'S POLICY "MANAGEMENT OF FILL".  
**FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH DEPARTMENT'S MUNICIPAL AND RESIDUAL WASTE REGULATIONS BASED ON 25 PA. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE. THESE REGULATIONS ARE AVAILABLE ON-LINE AT WWW.PACODE.COM.**

- UTILITY LINE TRENCH EXCAVATION NOTES**
- Limit advanced clearing and grubbing operations to a distance equal to two times the length of pipe installation that can be completed in one day.
  - Work crews and equipment for trenching, placement of pipe, plug construction and backfilling will be self contained and separate from clearing and grubbing and site restoration and stabilization operations.
  - All soil excavated from the trench will be placed on the uphill side of the trench.
  - Limit daily trench excavation to the length of pipe placement, plug installation and backfilling that can be completed the same day.
  - Water which accumulates in the open trench will be completely removed by pumping before pipe placement and/or backfilling begins. Water removed from the trench shall be pumped through a filtration device.
  - On the day following pipe placement and trench backfilling, the disturbed area will be graded to final contours and immediately stabilized.

**SOIL LIST, LIMITATIONS AND RESOLUTIONS:**

SOIL NAME*	CUTBANKS CAVE	CORROSION TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRO/HYDRIC INCLUSIONS	LOW STRENGTH/LANDSLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
URBAN LAND (UgB)	X	C/S	X	X	X	X	X	X	X	X	X	X	X	X	X	X

**SOIL LIMITATION RESOLUTIONS:**  
CUTBANKS CAVE - OSHA STANDARDS AND REGULATIONS MUST BE FOLLOWED AT ALL TIMES TO ENSURE THE SAFETY OF WORKER DURING TRENCHING AND EXCAVATION.  
CORROSION TO CONCRETE/STEEL - SPECIAL SITE EXAMINATION AND DESIGN MAY BE REQUIRED; INSTALL UTILITIES ENTIRELY WITHIN ONE KIND OF SOIL LAYER.  
DROUGHTY - USE NATIVE VEGETATION WHERE POSSIBLE. SUPPLEMENTAL IRRIGATION MAY BE NECESSARY FOR VEGETATION ESTABLISHMENT.  
EASILY ERODIBLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. USE SOD OR EROSION CONTROL NETTING IN AREAS OF STEEP SLOPES OR CONCENTRATED FLOWS.  
FLOODING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN.  
DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.  
HYDRO/HYDRIC INCLUSIONS - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.  
LOW STRENGTH/LANDSLIDE PRONE - MECHANICALLY COMPACT BERMS AND GRADE WHEN MATERIAL IS NOT SATURATED.  
SLOW PERCOLATION - STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA IN SOILS WITH POOR INFILTRATION PROPERTIES.  
PIPING - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT.  
POOR SOURCE OF TOPSOIL - SEED, FERTILIZING, AND SOIL PREPARATION FOR ADVERSE CONDITIONS.  
FROST ACTION - RECOMMENDED TO WORK DURING WARM WINTER MONTHS.  
SHRINK-SWELL - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. CONSULT GEOTECHNICAL ENGINEER FOR FROST ACTION.  
POTENTIAL SINKHOLE - MECHANICALLY COMPACT AREAS OF FILL PLACEMENT. INFILTRATION FACILITIES SHOULD BE MINIMIZED IN AREAS UNDERLAIN BY LIMESTONE. BMPs SHOULD BE DESIGNED WITH A LARGE FOOTPRINT TO INCREASE CONTACT AREA.  
PONDING - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN.  
WETNESS - POSITIVE STORM DRAINAGE, PUMP ALL SEDIMENT LADEN WATER INTO FILTER BAG OR SEDIMENT TRAP/BASIN. STORMWATER MANAGEMENT SYSTEMS AND INFILTRATION AREAS SHOULD BE SITUATED ABOVE THESE LIMITING ZONES.  
\* ON-SITE SPDS IDENTIFIED AND MAPPED FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY.

- NOTES**
- This site is currently (5+ years) the location of a fitness center and two unfinished building pads with all associated parking. Historically (50 years), it was the location of a Commercial Office Building, Manufacturing Building, Warehouse space, and a Single-Family Residential Dwelling along with associated parking and utilities.
  - There are no known adverse soil conditions or geological formations that require special consideration or offer potential for pollution of the surface waters. If adverse conditions are encountered during construction, the project geotechnical consultant will take appropriate action.

- PLAN EXCLUSIONS**
- There are no proposed temporary or permanent channels; therefore, no calculations or drainage areas are provided.
  - There are no riparian forest buffers; therefore, they are not shown on the plan and are not requested to be waived of the protection obligations or mapped.
  - This project is not within a Special Protection Watershed; therefore, there is no antidegradation analysis or ABACT.
  - This is not an HQ or EV Watershed; therefore, there are no boundaries for HQ or EV watersheds.

**EROSION CONTROL MAINTENANCE PROCEDURES**  
**Rock Construction Entrances:**  
The structure's thickness will be constantly maintained to the specific dimension by adding rock. A stockpile of rock materials will be maintained on the site for this purpose. At the end of each construction day, all sediment deposited on public roadways, will be removed and returned to the construction site. Washing of the trucks within the roadway is not permitted.

**Temporary Inlet Protection:**  
Sediment will be removed from the trap after each storm event.

- Silt Sock:**
- The sock installation should be inspected after every precipitation event and on a weekly basis. Any necessary repairs will be made immediately.
  - Accumulated sediments will be removed as required to keep the sock functional. In all cases, remove deposits where accumulation reaches 1/3 the above ground height of the sock.
  - All undercutting or erosion of the toe anchor will be repaired immediately with compacted backfill materials.
  - Adhere to any manufacturer's recommendations for replacing filter fabric socks due to weathering.

- Silt Fence:**
- The sock installation should be inspected after every precipitation event and on a weekly basis. Any necessary repairs will be made immediately.
  - Accumulated sediments will be removed as required to keep the sock functional. In all cases, remove deposits where accumulation reaches 1/3 the above ground height of the sock.
  - All undercutting or erosion of the toe anchor will be repaired immediately with compacted backfill materials.
  - Adhere to any manufacturer's recommendations for replacing filter fabric socks due to weathering.

LIMIT OF DISTURBANCE = 0.70 ACRES

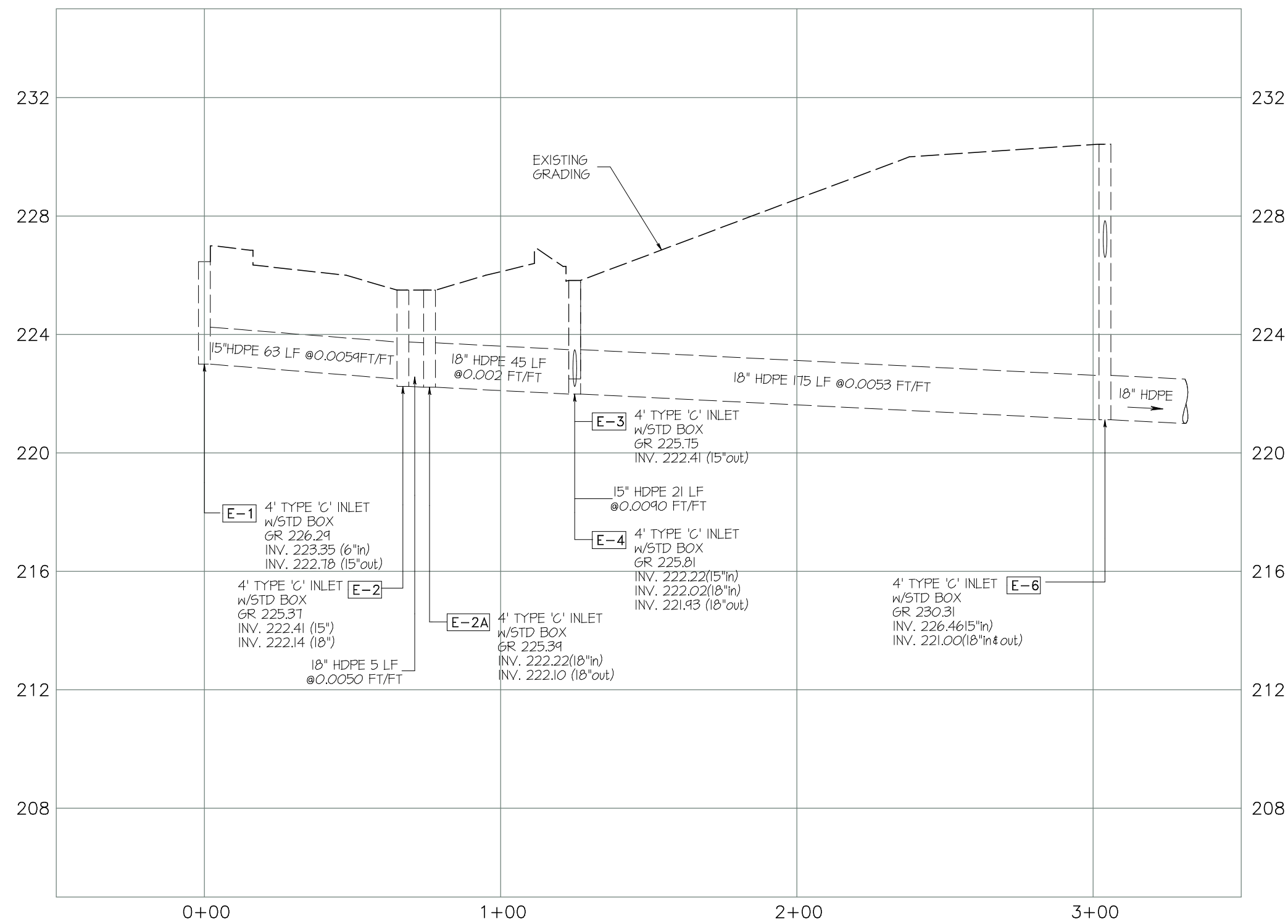
CHAPTER 93 RECEIVING WATER CLASSIFICATION:  
TACONY/TOOKANY CREEK - WWF

SWITCHVILLE CROSSING

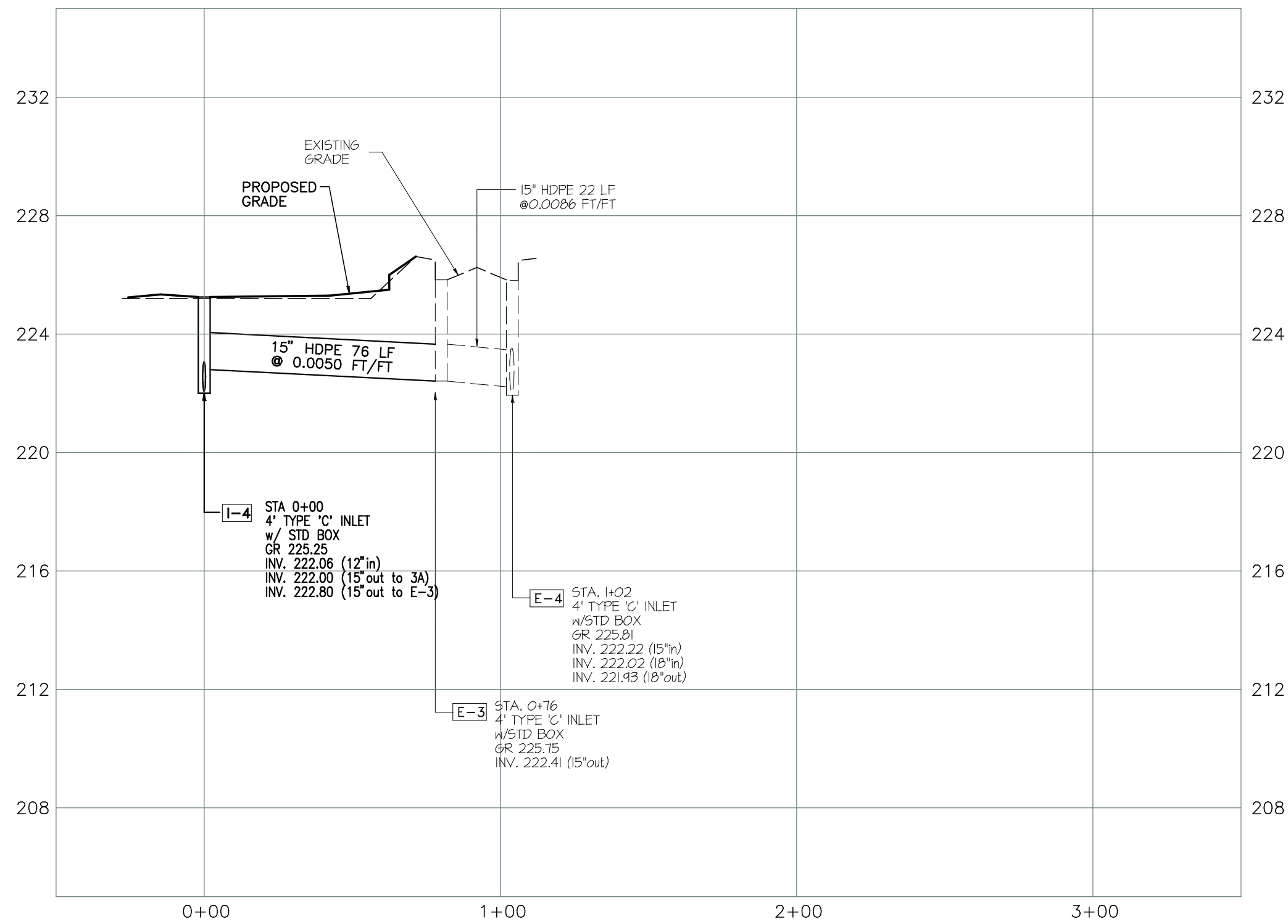
EROSION AND SEDIMENTATION CONTROL PLAN  
WYNOCOTE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE JANUARY 22, 2019  
DWG NO. A-9-412  
JOB NO. 25348C  
SHEET NO. 9 OF 14

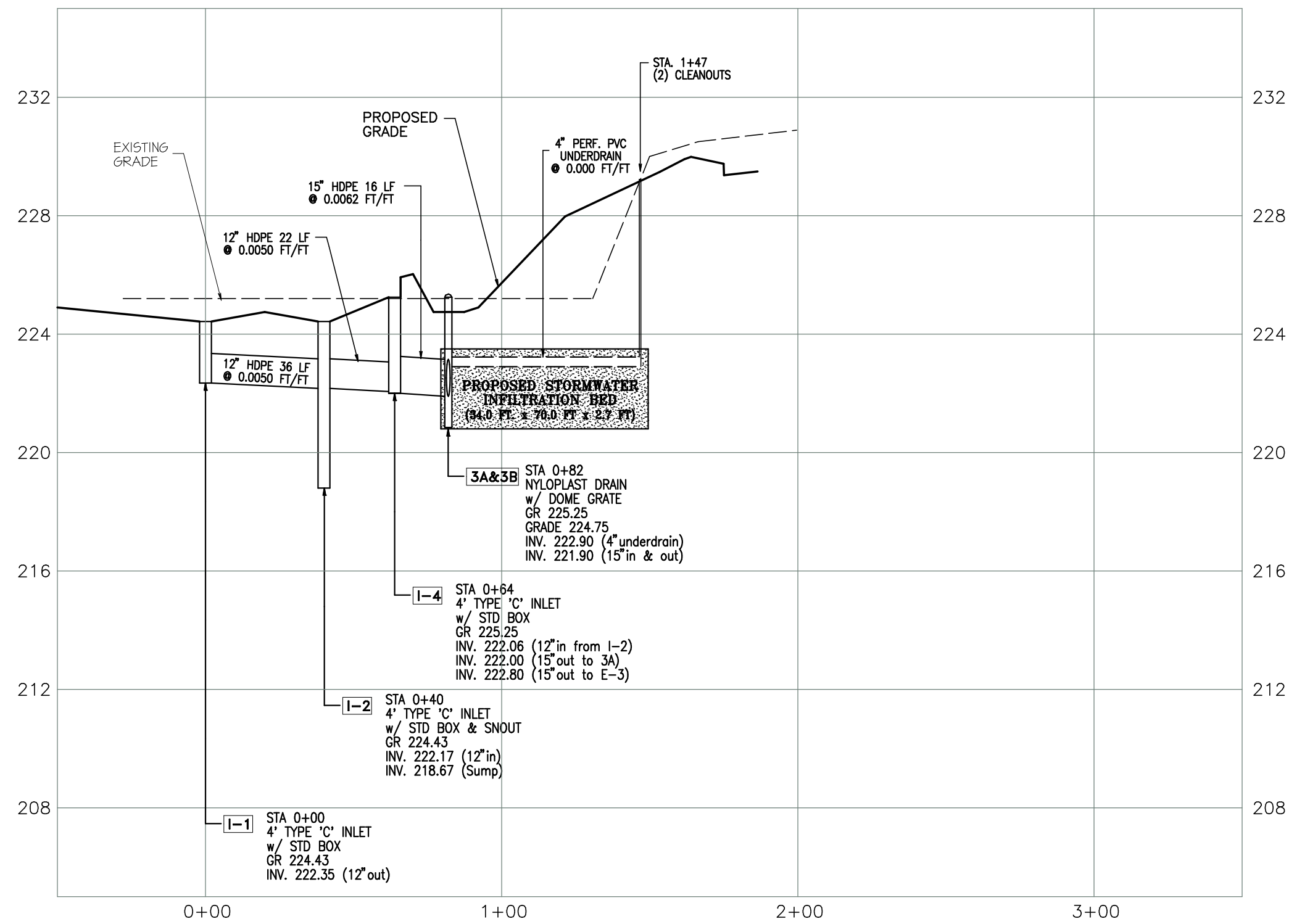




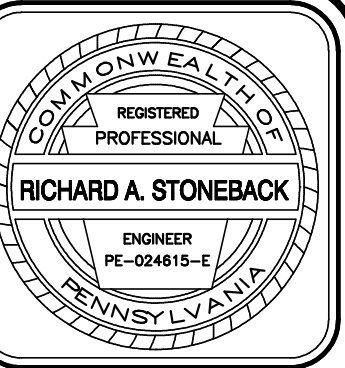
EXISTING INLET E-1 to INLET E-6



PROPOSED INLET I-4 to INLET E-3



PROPOSED INLET I-1 to INLET I-4 to 3A & INFILTRATION BED



COUNTY PARCEL NO.  
30-00-28960-00-8

BLOCK - UNIT  
305-001

SITE ADDRESS  
Jenkintown, PA 19046

DEED BOOK/PAGE  
05 1182 PG 0042

RECORD OWNER  
DUKE REAL ESTATE  
PARTNERS, LLC  
2010 County Line Road  
Huntingdon Valley, PA

CHARLES E. SHOEMAKER, INC.  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABINGTON, PA, 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
E-MAIL: staff@ceshoemaker.com

SCALE 1" = 20'

0' 10' 20' 40' 60'

DATE	NO	REVISION	BY

SWITCHVILLE CROSSING

STORM SEWER PROFILES  
WYNCOTE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

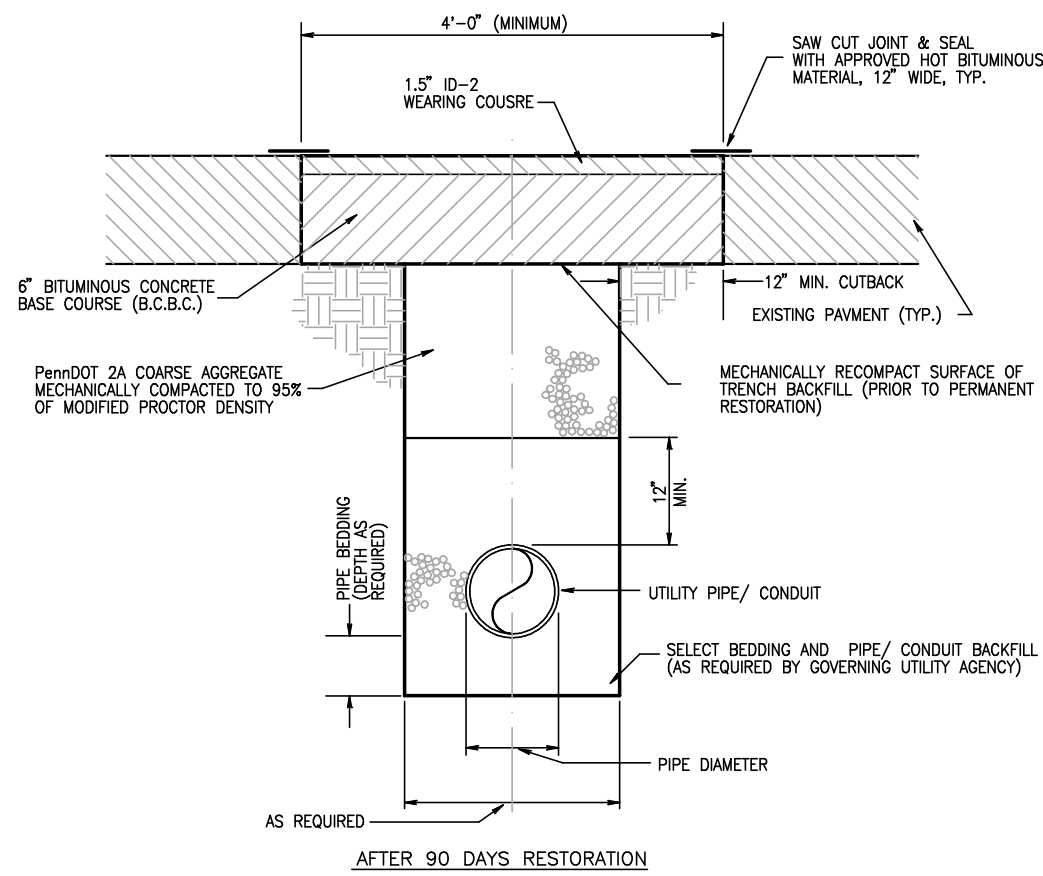
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10 OF 14

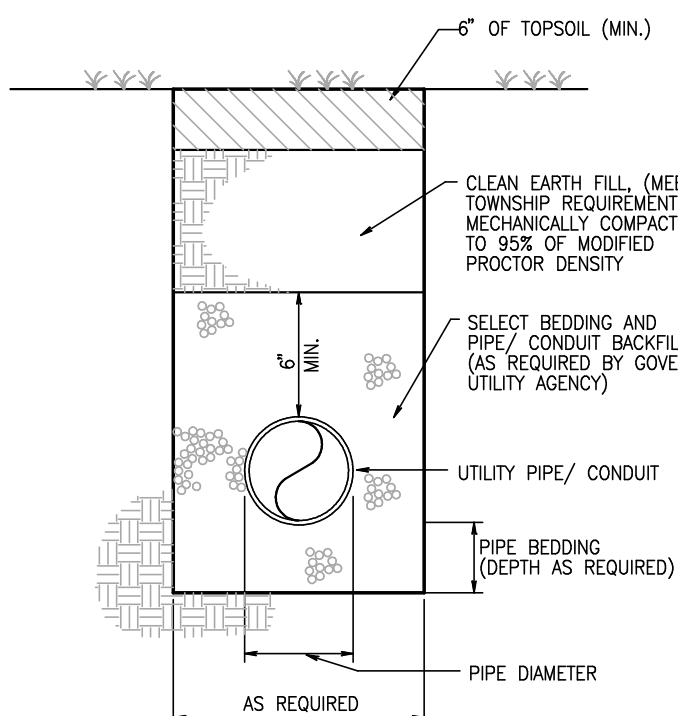




- NOTES:
- BEFORE 90 DAYS, ROAD SHALL BE TEMPORARILY RESTORED WITH 2A COARSE AGGREGATE AND 2" OF PENDOT 2-2 BINDER COURSE (TO GRADE) AND ALLOWED TO SETTLE 90 DAYS PRIOR TO PERMANENT RESTORATION. AS SHOWN ABOVE, PERMANENT RESTORATION OF TRENCHES SHALL BE COMPLETED ONLY AFTER APPROVAL BY THE TOWNSHIP ENGINEER.
  - RETAINED SURFABLE MATERIAL MAY BE USED AS BACKFILL FOR TRENCHES IN TOWNSHIP RIGHT-OF-WAY (OUTSIDE OF CARTRAY) WHEN MORE THAN THREE (3) FEET FROM EDGE OF EXISTING CARTRAY, CURB, AND / OR SIDEWALK.
  - MINIMUM WIDTH OF ALL RESTORATION SHALL BE FOUR (4) FEET.
  - COLD PATCH SHALL BE APPLIED ON ALL TRENCH RESTORATIONS (PRIOR TO 90 DAYS) WHEN B.B.C./D-2 BINDER COURSE ARE NOT AVAILABLE DUE TO WEATHER CONDITIONS.

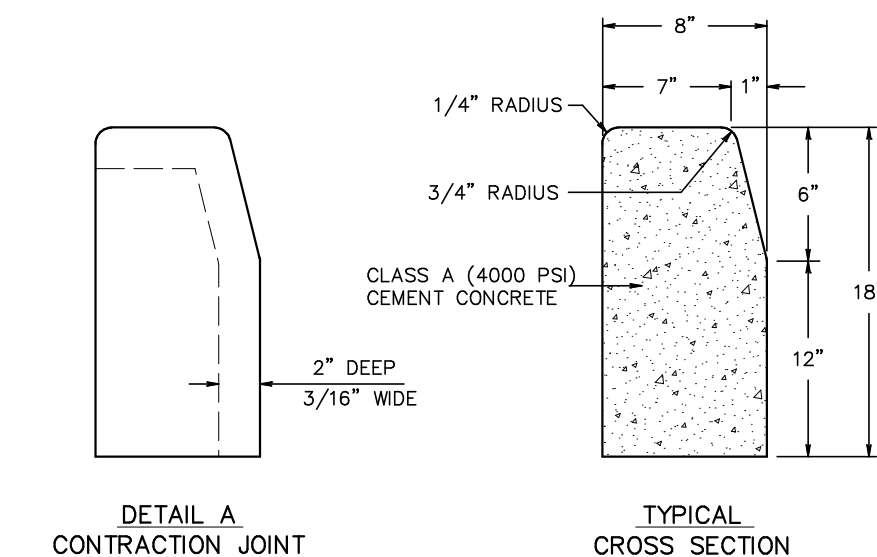
#### TYPICAL TRENCH RESTORATION DETAIL (FOR PAVED AREAS)

N.T.S.



#### TYPICAL TRENCH RESTORATION DETAIL (FOR NON PAVED AREAS)

N.T.S.



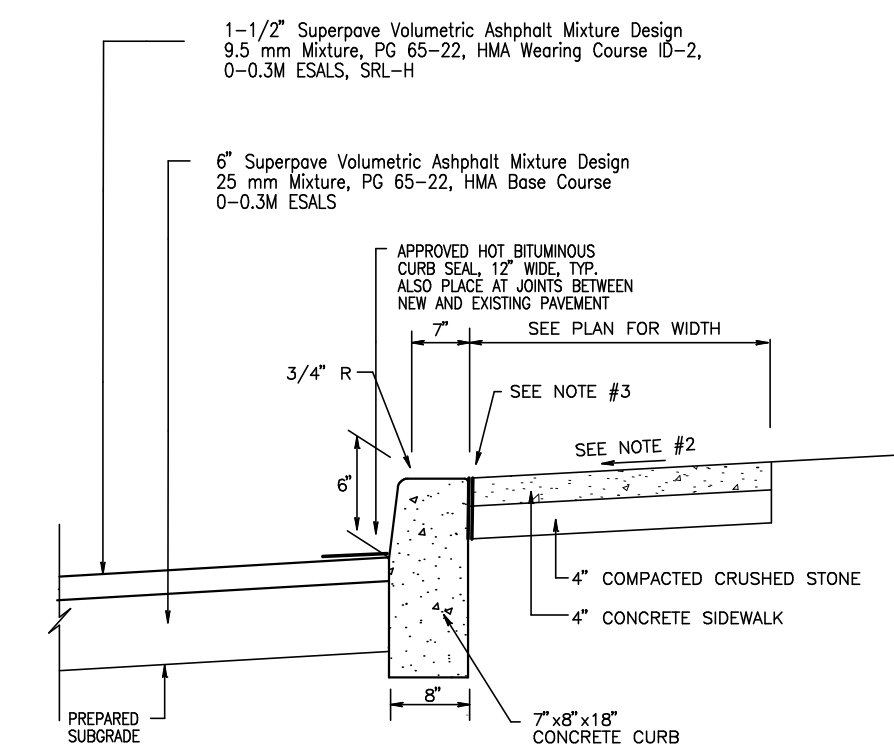
DETAIL A  
CONTRACTION JOINT

TYPICAL  
CROSS SECTION

- Materials and construction shall meet the requirements of Publication 408, Section 830 for plain cement concrete curb and gutter, and Section 684 for concrete curb cut ramps.
- Splice contraction joints in uniform lengths or section.
- Provide 3/4" wide precast expansion joint material wherever concrete sidewalk abuts any rigid pavement, sidewalk, or structure every 50 feet (Max.) with the top of joint filler flush with adjacent concrete surface.
- Curb cut ramp dimensions and slopes should be adhered to unless existing conditions require specific design based on roadway grades.
- Provide slip resistant texture on curb cut ramp by coarse brooming transverse to the slope of the ramp.
- Seal joints with an approved sealing material in accordance with Publication 408.
- Dowel pin curb where curb abuts inlet heads.

#### PLAIN CEMENT CONCRETE CURB

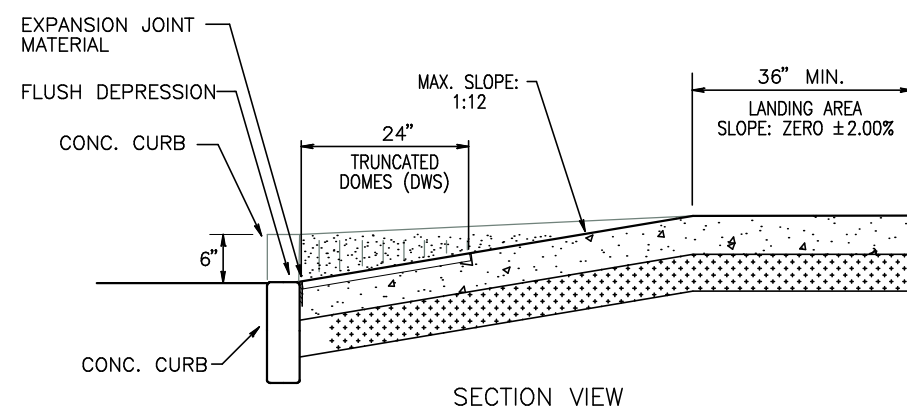
N.T.S.



- NOTES:
- CONCRETE TO BE 4000 PSI AT 28 DAYS.
  - PROVIDE A MINIMUM SLOPE OF 1/4" PER FOOT IN AT LEAST ONE DIRECTION ACROSS WALK.
  - PROVIDE 1/2" WIDE BITUMINOUS EXPANSION JOINT MATERIAL WHEREVER CONCRETE WALK ABUTS CURB, BUILDINGS, ETC.
  - MATERIAL AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408, LATEST REVISION.

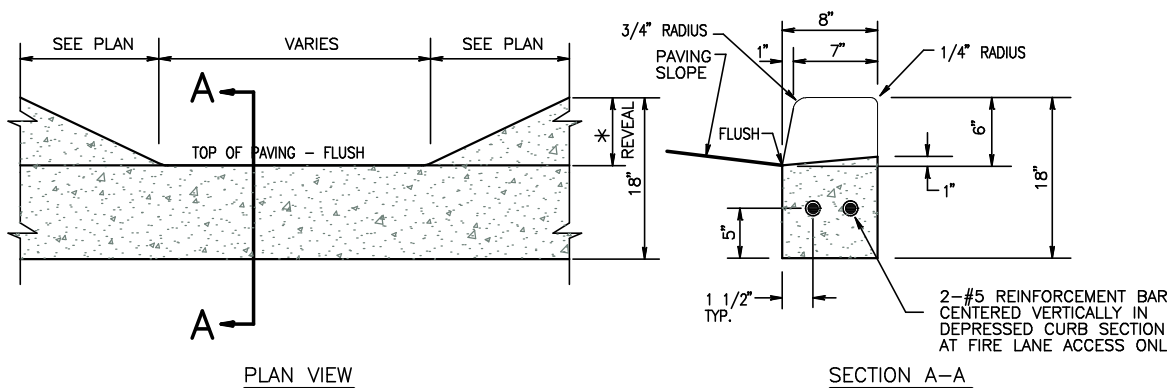
#### TYPICAL SITE ASPHALT PAVEMENT CONCRETE CURB, AND CONCRETE WALK SECTION

N.T.S.



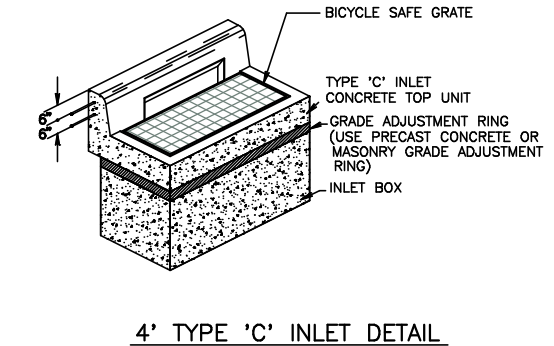
#### CONCRETE CURB DEPRESSION FOR SIDEWALK RAMPS

N.T.S.



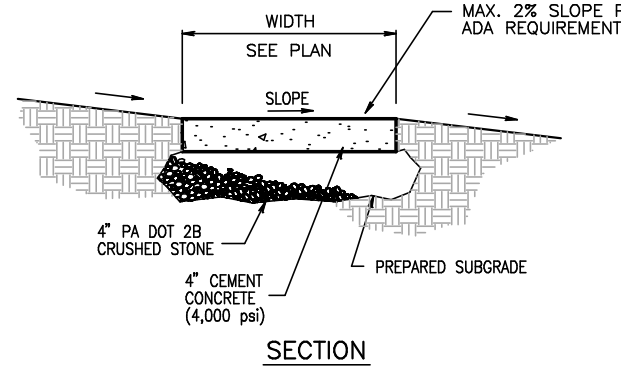
#### FLUSH ADA DEPRESSED CONCRETE CURB DETAIL

N.T.S.



#### TYPICAL INLET DETAILS

N.T.S.



#### CONCRETE WALK DETAIL

N.T.S.

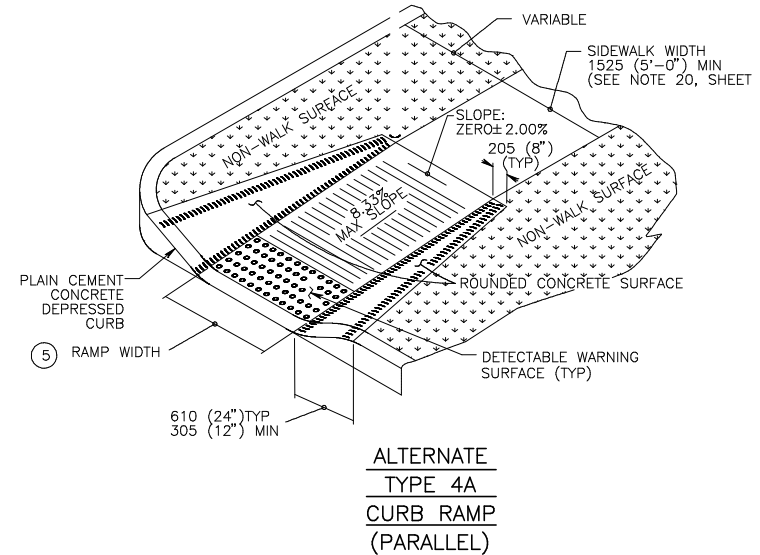
- NOTES:
- CONCRETE TO BE 4000 PSI AT 28 DAYS.
  - 1/2" PREMOULDED EXPANSION JOINTS TO BE PLACED EVERY 3 FEET (MAXIMUM) WHERE SIDEWALKS ARE REQUIRED TO BE 5 FEET WIDE, AND AT ALL LOCATIONS WHERE EXISTING PAVEMENT OR SIDEWALK MEETS PROPOSED SIDEWALK, WHERE SIDEWALK ABUTS CURB OR OTHER SMALL STRUCTURES, AND WHERE SIDEWALK TRANSITIONS FROM 4" THICK TO 6" THICK (DRIVEWAYS APRONS, ETC.)
  - WITH ALL PROPOSED SIDEWALK, A NON-SLIP SURFACE TEXTURE SHALL BE BROOMED TRANSVERSE TO THE SLOPE OF THE SIDEWALK.
  - CONCRETE SIDEWALK SHALL BE PROPERLY CURED WITH WHITE CURING COMPOUND AS SPECIFIED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION FORM 408.

#### CONCRETE WALK DETAIL

N.T.S.

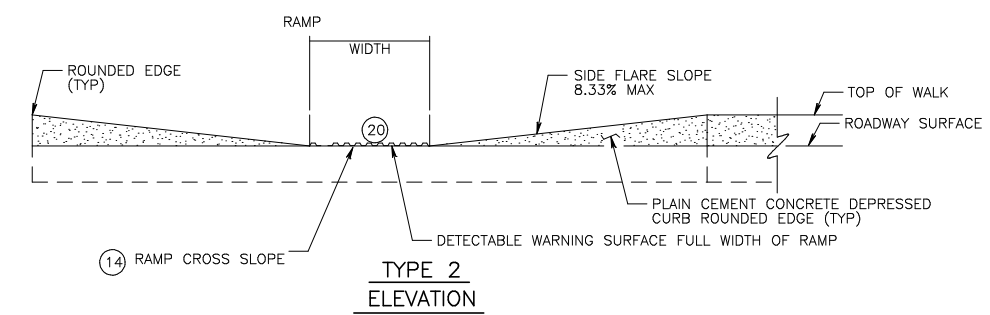
#### TYPE 4A NON-TRAVERSABLE ROLLED FLARE TRANSITION

- SIDE FLARES 10.00% MAX SLOPE
- 8.33% MAX RAMP SLOPE
- CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO THE MINIMUM 12'0" (4'-0")
- SLOPE VARIES SEE RAMP DETAILS
- CURB RAMP REQUIRE A 12'0" (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WITH A FLUSH CONNECTION TO THE SIDEWALK
- CONTRACT DEPRESSURE CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION TO THE SIDEWALK
- CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING FROM LEVEL LANDING TO ROADWAY PROFILE.



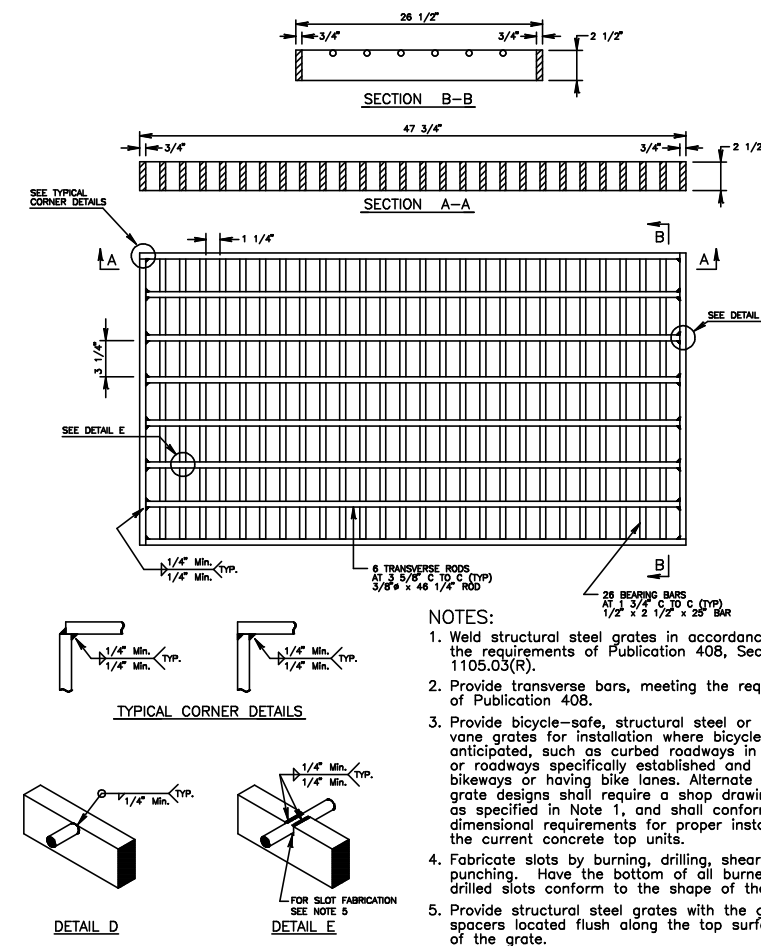
#### TYPE 4A CURB RAMP DETAIL

N.T.S.



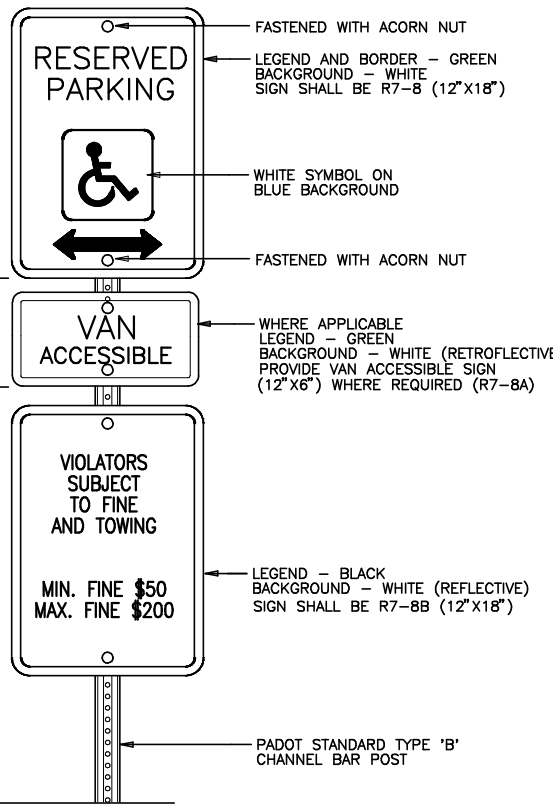
#### TYPE 2 CURB RAMP DETAIL

N.T.S.



#### STRUCTURAL STEEL GRATE BICYCLE SAFE

N.T.S.



#### RESERVED PARKING SPACE w/ PENALTIES & VAN ACCESSIBLE SIGNS

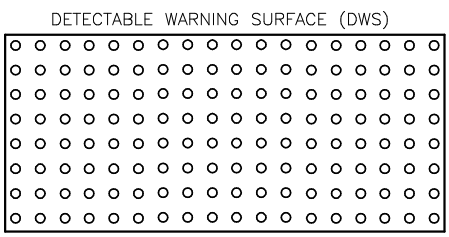
N.T.S.

#### ADA ACCESSIBILITY NOTES:

- All handicapped parking spaces and access aisles to the handicap parking spaces shall have a maximum of 2% slope in all directions (this includes turning slope and cross slope).
- An accessible route from the public street or sidewalk to a building entrance must be provided. This accessible route shall be a minimum of 60" wide. The running slope of an accessible route shall not exceed 5% and the cross slope shall not exceed 2%.
- Slopes exceeding 5% but less than 8% will require a ramp and must conform to the requirements for ramp design (handrails, curbs, landings). No ramps shall exceed 5% running slope or 2% cross slope.
- In the case that a new sidewalk will be constructed in the R-O-W of a site, the running slope of the sidewalk shall not exceed 5% and the cross slope shall not exceed 2%. This standard applies to cross walks in the driveway as well and will require special attention during staking to make sure the 2% cross slope is met in the cross walk.
- It will be the responsibility of the General Contractor to ensure that the handicap parking spaces, accessible routes, and sidewalks/crosswalks are constructed to meet ADA requirements.
- Any requirements listed above that can not be met shall be brought to the Engineer's attention immediately. Anything not built to the above standards will require removal and replacement of the non-compliant areas at the General Contractor's cost.

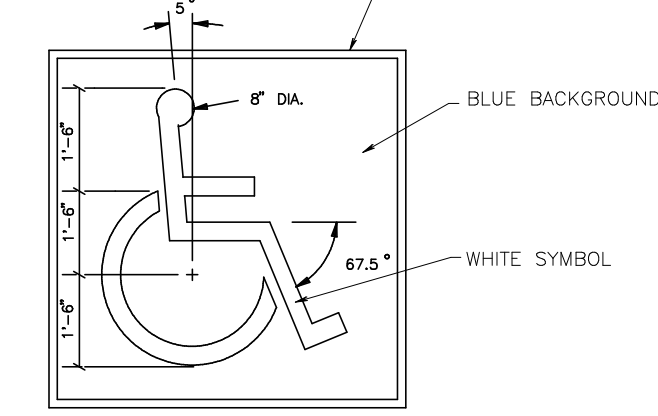
#### CONSTRUCTION NOTES:

- All Elevations are based upon local NAVD 88 Datum.
- Unless otherwise stated, all construction or material standards not specifically shown or referred to herein shall comply with the provisions of Pennsylvania Department of Transportation Publication 408, Publication 72 (Standards for Roadway Construction - NC Standards), Pennsylvania Code, Title 67, Chapter 441 (Access to and Occupancy of Highways by Driveways and Local Roads), or any other applicable Pennsylvania Department of Transportation specification. Deviation from any standard specified in the ordinance or stated herein, shall be approved by the Township Engineer.
- All concrete utilized in the construction of approved structures/facilities shall, as a minimum be PenDOT Class "A" (4,000 p.s.i. - 28 day compressive strength) unless more stringent standards are specified elsewhere on the construction details or in PenDOT Publications 408 and/or 72.
- Existing underground utilities were plotted from utility company plans supplied to us in accordance with PA ONE CALL and are approximate only. Contractors are required by PA ONE CALL to determine the exact location of all underground utilities prior to commencing construction.
- All utilities and services, including but not limited to gas, water, electric, sanitary and storm sewer, telephone, cable, etc. within the limits of disturbance, shall be vertically and horizontally located. The Contractor shall use and comply with the PA ONE CALL system and on-site investigations to locate the underground utilities prior to earth disturbance.
- Site grading shall be performed in accordance with these plans and specifications, and the recommendations by the on-site construction Geotechnical Engineer.
- All excavated or fill areas shall be compacted to 95% of modified proctor maximum density per ASTM Test D-1557. Should subbase be deemed unsuitable by the Owner or Owner's representative, subbase is to be removed and filled with approved fill material compacted to 95% optimum density.
- The Contractor shall be required to secure all necessary permits (including Conservation District and D.E.P., etc.) for all off-site haul and/or borrow sites.
- All new curb on-site shall be concrete curb with six (6) inch reveal unless otherwise noted.
- Contractor shall notify Township and Township Engineer 48 hours prior to start of construction.
- The Contractor is responsible for coordination of the site plan documents and architectural design for exact building utility connection locations, grease trap requirements/details, door access, and exterior grading.
- The Public shall not have access to active construction zone. Site Contractor shall provide orange protection fencing or temporary 6 Ft. high chain link fencing during construction activities.



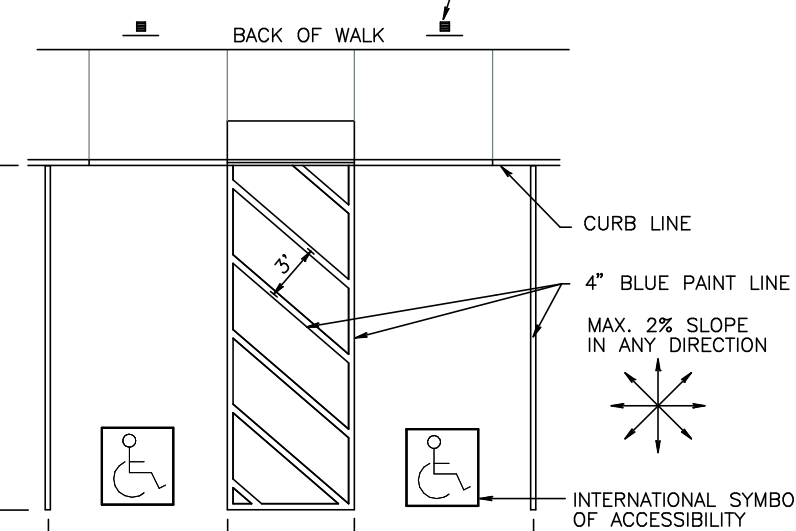
#### TRUNCATED DOME DETAIL

N.T.S.



#### HANDICAP WHEELCHAIR SYMBOL

N.T.S.



#### HANDICAP PARKING SPACE MARKINGS

N.T.S.



COUNTY PARCEL NO. 30-00-28960-00-8  
BLOCK - UNIT 305-001  
SITE ADDRESS 1007 EDGE HILL ROAD ABINGTON, PA. 19001  
DEED BOOK/PAGE 18046  
DB 1187 PG 0442

RECORD OWNER  
**DUKE REAL ESTATE PARTNERS, LLC**  
2010 County Line Road  
Huntingdon Valley, PA 19006

**CHARLES E. SHOEMAKER, INC.**  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABINGTON, PA. 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
E-MAIL: [staff@ceshoemaker.com](mailto:staff@ceshoemaker.com)

SCALE 1" = 20'

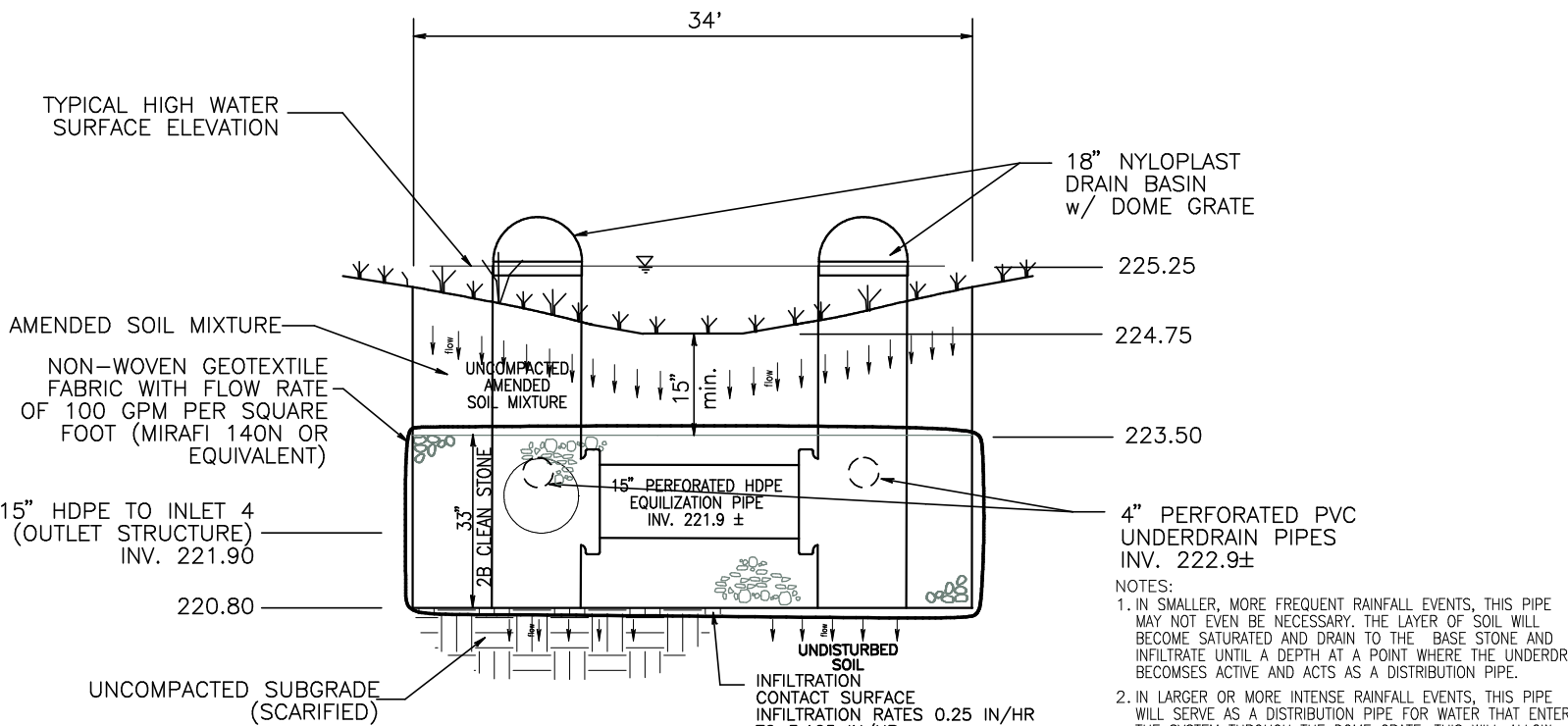
DATE	NO.	REVISION	BY

**SWITCHVILLE CROSSING**

**CONSTRUCTION DETAILS**  
*WYNCOTE SUB-STATION*  
*Highland Avenue & Kenmore Avenue*  
PREPARED FOR  
**DUKE REAL ESTATE PARTNERS, LLC**  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE JANUARY 22, 2019  
DWG NO. A-9-414  
JOB NO. 25348C  
SHEET NO. 11 OF 14





## RAIN GARDEN DETAIL NTS

### RAIN GARDEN/INFILTRATION BED CONSTRUCTION SEQUENCE:

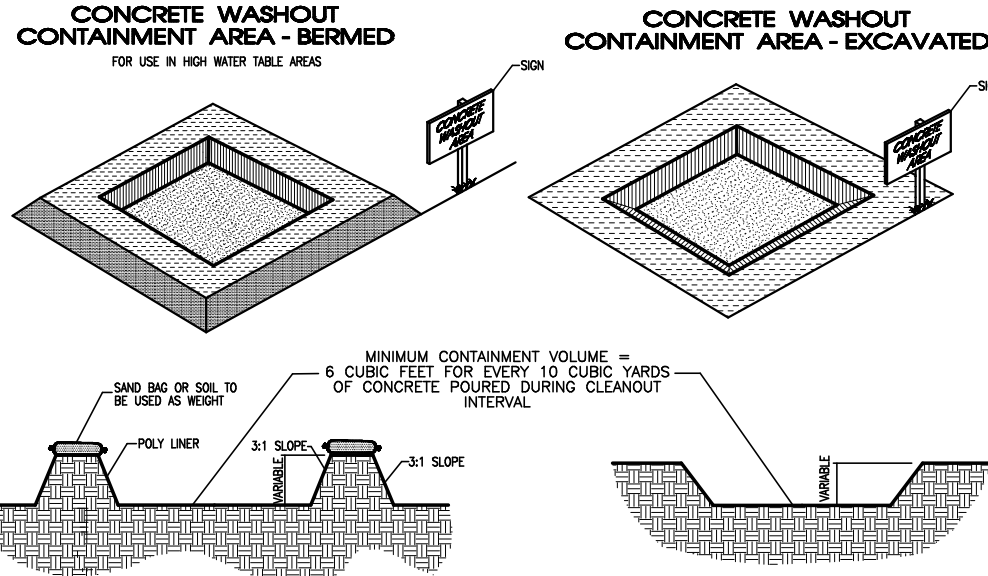
- ROUGH GRADE TO WITHIN TWO (2) FEET OF THE FINAL ELEVATION OF THE INTERFACE BETWEEN THE PROPOSED SUBGRADE AND BORETENTION PLANTING SOIL TO PROTECT SUBSOILS FROM COMPACTION.
- AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT AND GRADE TO FINAL ELEVATION.
- AT THE TIME OF FINAL CONSTRUCTION, EXCAVATE TO FINALS DEPTHS PER DETAIL.
- SCARIFY OR TILL THE BASIN FLOOR TO PROVIDE A WELL-AERATED AND HIGHLY POROUS SURFACE AREA.
- PLACE FABRIC AND FILL AREA WITH STONE AND PLANTING SOIL AS SHOWN IN DETAIL. SOILS SHOULD BE AMENDED WITH A COMPOSTED ORGANIC MATERIAL AND SAND PER SPECIFICATION. PLACEMENT SHOULD BE IN LIFTS OF 1 FT OR LESS AND ONLY LIGHTLY TAMPED.
- PLANT PROPOSED LANDSCAPING AS SHOWN ON LANDSCAPE PLAN.
- STORMWATER INFILTRATION TESTING WAS PERFORMED AND EVALUATED BY VW CONSULTANTS, LLC, OF QUAKERTOWN, PA. SITE TESTING WAS DONE ON AUGUST 28, 2018 AND RESULTS SUMMARIZED IN THE STORMWATER INFILTRATION TESTING REPORT DATED SEPTEMBER 4, 2018.

## AMENDED SOIL NOTES

- The amended soil shall be classified as a loam, sandy loamy sand per USDA textural analysis. The amended soil shall be free to stones, stumps, roots, and other wood material over 1/2" in diameter. Brush or seeds from noxious weeds shall not be present in the soil. Placement of the amended soil shall be in lifts of 1/2" or less and only lightly tamped.
- In order to achieve optimal organic matter content, composts, mulches, manures, and/or mushroom soils may be added to the amended soil mixture. Composts utilized in the amended soil mixture shall have been produced per CFR 503 regulations, where applicable.
- The amended soil material soil be at an optimal moisture content prior to installation in any proposed facility in order to provide a uniform mixture.
- The gravel portion of the amended soil mixture shall be below 10 percent, all of which shall be less than 1/2" in size.
- If sand is added to the amended soil mixture to raise the sand content, the sand shall meet ASTM C-33 (washed concrete sand with 2-4% fines) requirements. Screenings are not the be used.

## AMENDED SOIL MIXTURE

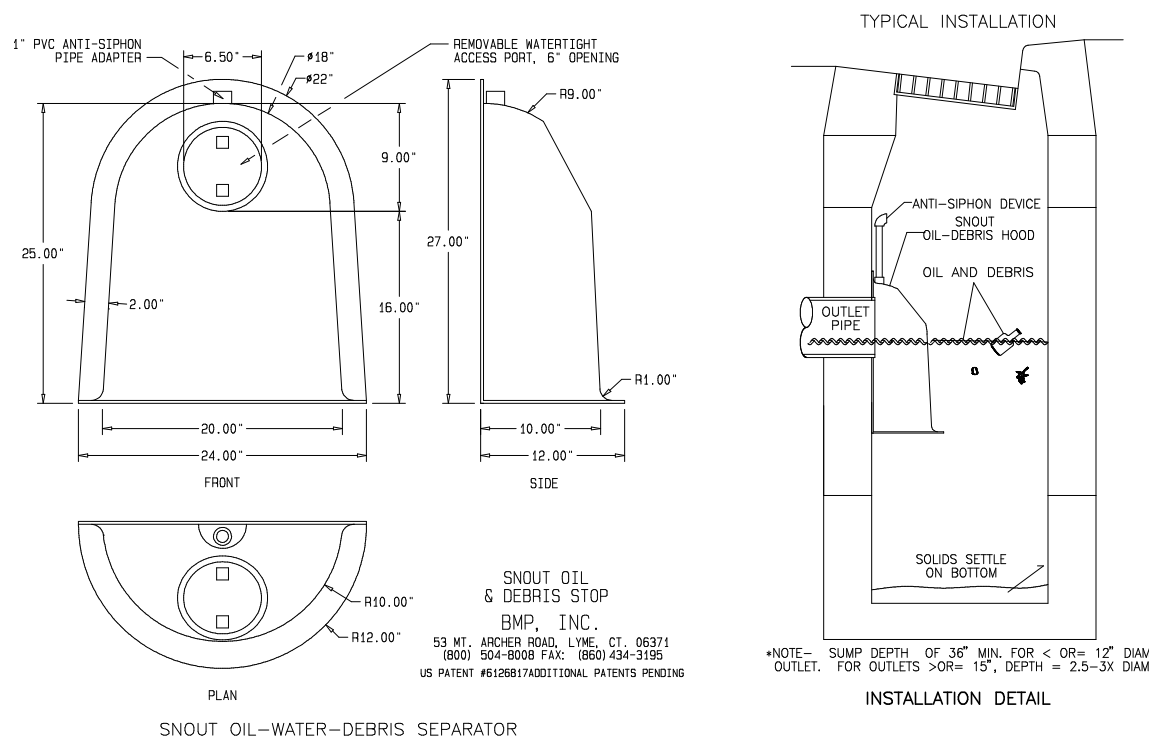
pH - 5.5 TO 7.0  
ORGANIC MATTER - 4 TO 10 PERCENT  
SAND - 50 TO 75 PERCENT  
SILT - 15 TO 40 PERCENT  
CLAY - LESS THAN 10 PERCENT  
GRAVEL - LESS THAN 10 PERCENT



### NOTES

- PERFORM WASHOUT OF CONCRETE TRUCKS OR PUMPS OFFSITE OR LOCATE WASHOUT AREA TO AVOID WASH OUT CONCRETE TRUCKS INTO STORM DRAIN, OPEN DITCHES, STREAMS OR STREAMS.
- FOR ON-SITE WASHOUT:
  - LOCATE WASHOUT AREA AT LEAST 50 FEET FROM STORM DRAIN, OPEN DITCHES, WATER BODIES OR STEEP SLOPES. WASHOUT LOCATIONS MUST BE SITED AS NECESSARY TO ENSURE THAT CONCRETE TRUCK DRIVERS UTILIZE PROPER AREAS.
  - CONTAIN RUNOFF BY CONSTRUCTING A TEMPORARY PIT OR BERM AREA LARGE ENOUGH TO HOLD FOR LIQUID AND SOLID WASTE. ALLOW ADEQUATE FREEBOARD FOR STRUCTURAL STABILITY.
  - WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY. BE SURE THAT THE STORMWATER COLLECTION SYSTEM IS PROTECTED BY A SEDIMENT TRAP OR SIMILAR DEVICE.
- DO NOT WASH SHEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO THE STREET OR STORM DRAIN SYSTEM. COLLECT AND RETURN SHEEPINGS TO AGGREGATE BAGS, STOCKPILES OR DISPOSE AS WASTE.
- CLEAN OUT WHEN CONTAINMENT AREA IS BOX FULL TO CAPACITY. DISPOSE OF HARDENED CONCRETE & CEMENT/AGGREGATE WASTE IN ACCORDANCE WITH ALL LAWS.

## CONCRETE WASHOUT AREA



### NOTES

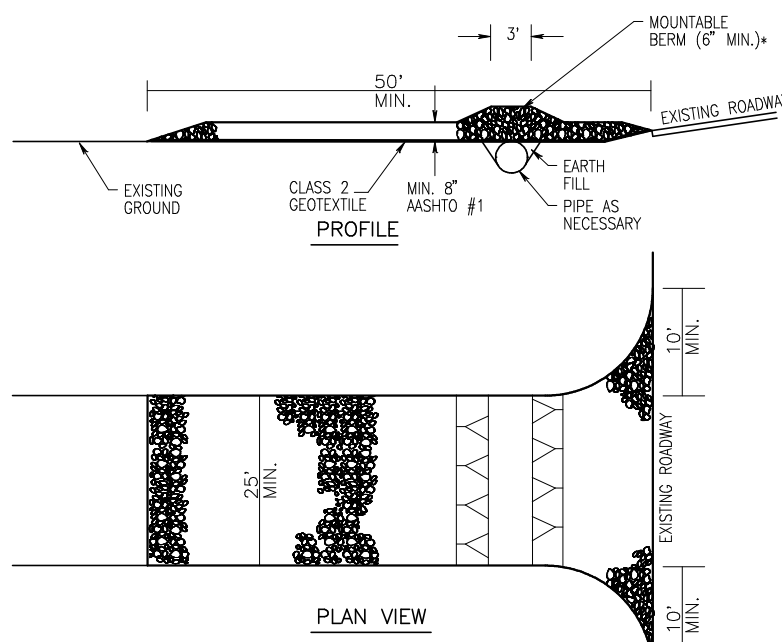
- ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE AS MANUFACTURED BY BEST MANUFACTURING PRODUCTS, INC. (BMP).  
BMP, INC.  
1000 SOUTH 40TH AVENUE  
SUITE 100  
DENVER, CO 80231  
TEL: (303) 434-3195 FAX: (303) 434-3196  
WWW.BMP-INC.COM
- ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH 750 GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
- ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A WATERTIGHT HOOD, AND AN ANTI-SIPHON VENT AS SHOWN (SEE CONFIGURATION DETAIL).
- THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
- THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 4" FOR PIPES < 12" I.D.
- THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 6" ACCORDING TO STRUCTURAL CONFIGURATION.
- THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
- NEW HOODS SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL).
- INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT SHALL INCLUDE:
  - REGULATED CHOKER GEL FLOW GASKET WITH PSA BACKING
  - PVC ANTI-SIPHON VENT PIPE AND ADAPTER
  - CHOKER GASKET GEL FLOW GASKET WITH PSA BACKING
  - ANCHOR SHELLS

### HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

OIL - DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)

## SNOUT™ INLET WATER QUALITY STRUCTURE

N.T.S.



### NOTES

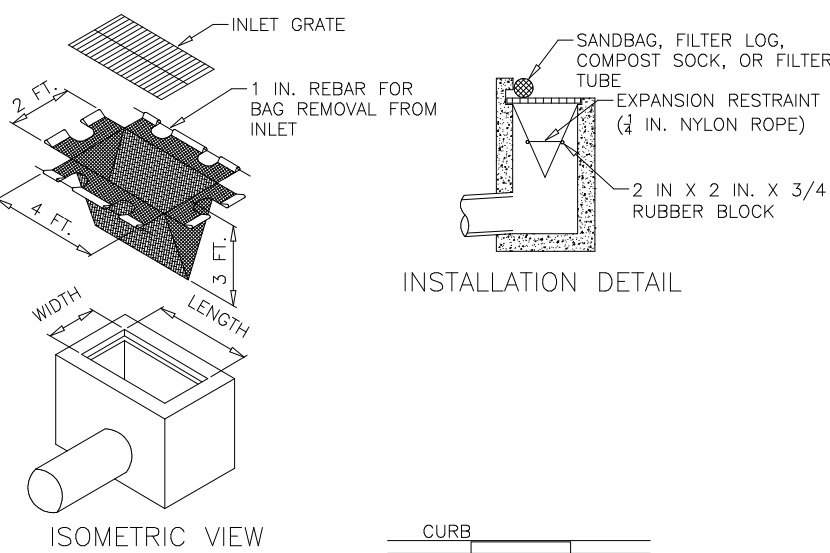
- REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
- RUNOFF SHALL BE DIVERTED FROM ROADWAY TO SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

## ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE

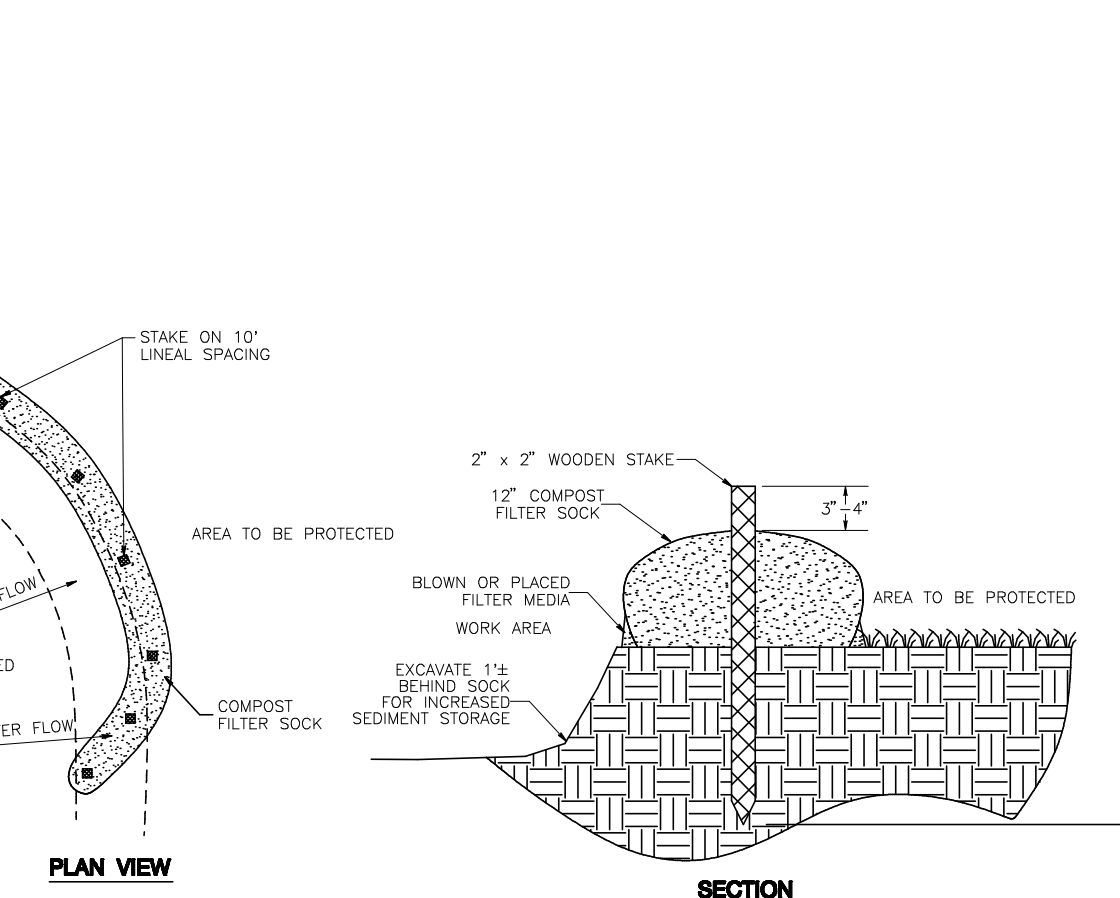


### NOTES

- MAXIMUM DRAINAGE AREA = 1/2 ACRE.
- INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERM SHALL BE REQUIRED FOR ALL INSTALLATIONS.
- ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONE, ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECOVERS FINAL GRADE.
- AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS. A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.
- INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND ROLLED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED 20% TO 40% DUE TO FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOTTED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE SITE NOTES.
- DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

## STANDARD CONSTRUCTION DETAIL #4-15 FILTER BAG INLET PROTECTION - TYPE C INLET

NOT TO SCALE



### NOTES

- Stock fabric shall meet standards of Table 4.1 (363-2134-008/March 31, 2012/Page 63). Compast shall meet the standards of Table 4.2 (363-2134-008/March 31, 2012/Page 64).
- Compast filter sock shall be placed at existing level grade. Both ends of the sock shall be extended at least 8 feet up slope at 45 degrees to the main sock alignment as shown on detail. Minimum stake spacing shall not exceed that shown on detail.
- Figure 4.2 (363-2134-008/March 31, 2012/Page 66). Stakes may be installed immediately down slope of the sock if so specified by the manufacturer.
- Traffic shall not be permitted to cross filter socks.
- Accumulated sediment must be removed when it reaches half the aboveground height of the sock and disposed of in a manner described elsewhere in the plan.
- Socks shall be inspected weekly and after each runoff event. Damaged socks shall be replaced according to the manufacturer's specifications of replaced within 24 hours of inspection.
- Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's recommendations.
- Upon stabilization of the erosion tributary to the sock, stakes should be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mesh spread as a soil supplement.

## COMPOST FILTER SOCK DETAIL

N.T.S.

## SEQUENCE OF CONSTRUCTION

### SEQUENCE NOTES:

- The contractor is to notify the Township and Township Engineer 48 hours prior to the start of construction.
- All topsoil is to be re-spread over all landscaped and lawn areas to a uniform depth of 6". Graded areas should be scarified or otherwise loosened to a depth of 3" to 5" prior to topsoil placement to permit bonding of the topsoil to the subgrade.
- No more than 15,000 square feet of disturbed area is to reach final grade before initiating seeding and mulching operations.
- All water pumped from work areas shall be pumped through a properly situated filter bag.
- Cessation of earthmoving activity for 4 days or longer requires temporary stabilization.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE.
- After project is completed and all disturbed areas have been stabilized, the Permittee must terminate the NPDES permit. An as-built survey must be performed and Professionally certified to state that the work was performed per the design drawings.

### SEQUENCE:

- At least 7 days before starting any earth disturbance activities, the operator shall invite all contractors involved in those activities, the landowner, all appropriate municipal officials, the erosion and sediment control plan preparer, and the Bucks County Conservation District to an on-site meeting. Also, at least 3 days before starting any earth disturbance activities, all contractors involved in those activities shall notify the Pennsylvania One Call System incorporated at 1-800-242-1776 for buried utilities locations.
- Install sill, fence/sock and inlet protection devices as shown on E&S Plan.
- Install rock construction entrance as shown on E&S Plan.
- Remove any demolition items as needed per the demolition plan.
- Install remaining underground utilities, including electric, telephone, gas, etc., to existing building.
- Begin grading of pavement areas.
- Install underground infiltration bed in middle of parking lot. THIS IS A CRITICAL STAGE OF CONSTRUCTION AND REQUIRES PROFESSIONAL OVERSIGHT. Inlets should be temporarily capped or sealed to prevent sediment laden water from entering the system.
- Construct and stabilize curbing throughout site.
- Install rain garden/landscape island from outside to minimize compaction. Place amended soil on underground infiltration bed per detail. Finish grade rain garden and plant plugs and proposed plantings.
- Remove rock construction entrances and stone access driveway and install bituminous base course.
- Construct and stabilize concrete sidewalks.
- Import topsoil and final grade any remaining site area. Upon completion of the final grading, install landscaping and apply permanent seeding and mulch until proper vegetation cover is established. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover over other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.
- After final site stabilization has been achieved, remove inlet protection devices. Areas disturbed during removal of the BMP's must be stabilized immediately. An area shall be considered to have achieved final stabilization when it has a minimum uniform 70% perennial vegetative cover or other permanent non-vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.
- After all construction work is completed, including buildings and any punchlist work is completed and accepted by Abington Township and the Township Engineer, the Owner/Developer may request installation of watering course. After watering course installation, install all permanent striping and complete all signage.
- Construction activities are expected to commence in the Spring of 2019 and be completed within one (1) year.

### TEMPORARY SEEDING REQUIREMENTS

#### FOR SPRING SEEDING (UP TO JUNE 15)

Annual Ryegrass or spring oats, or spring oats plus ryegrass, or winter wheat, or winter rye

#### FOR LATE SPRING AND SUMMER SEEDING (JUNE 16 to AUGUST 15)

Annual Ryegrass, or Japanese or foxtail millet, or sudangrass, or spring oats, or winter wheat, or winter rye

#### FOR LATE SUMMER AND FALL SEEDING (AUGUST 16 AND LATER)

Annual Ryegrass, or winter rye, or winter wheat, or spring oats (can be used but winter kills)

### NOTES

- Upon completion of an earth disturbance activity or any stage or phase of an activity, the site shall be immediately seeded, mulched or otherwise protected from accelerated erosion and sedimentation. During the non-growing season, seedings shall be made from March 15 through March 31. Seeding shall be completed prior to the end of the non-growing season. Disturbed areas which are not at final grade and which will be disturbed one year shall be seeded and mulched with a quick growing temporary seedling mixture and mulch. Disturbed areas which are either at final grade or will not be redisturbed within one year must be seeded and mulched with permanent seed mixture and mulch.
- MULCHING: Mulches alone help protect areas from erosion. Mulches also provide initial protection if area is to be seeded later. Use hay or straw at a rate of 3 tons per acre.
- SITE PREPARATION: Apply 1 ton of agricultural-grade limestone per acre, plus fertilizer at the rate of 50-50-50 (50 pounds of N, 50 pounds of P2O5, and 50 pounds of K2O) per acre, and work in where possible.
- Topsoil stockpiles must be seeded and mulched immediately.

### RECOMMENDED SEED MIXTURES FOR VARIOUS AREAS

AREA	MIXTURE
Slopes and banks (unmowed)	3 or 10
Drainage swales	2, 3 or 4
Utility Right-of-Way	3
Lawns	2, 3 or 10

### MULCHING REQUIREMENTS

- All conservation and erosion control areas, whether seeded with a drill, broadcasted, or hydroseeded, should be mulched to reduce soil erosion and to aid seed germination and seedling establishment. Grass hay and cereal straw are preferred mulches and should be applied to produce a loose layer 0.75 to 1 inch deep. Generally, 3 tons of mulch per acre are sufficient. As a guideline, a thickness of five to six overlapping straw or hay stems is acceptable for mulching. Straw or hay should not be chopped or finely broken during application. On steep slopes, hay rather than straw mulch is recommended.
- CAUTION: Hay much may introduce undesirable weeds; use clean much if weeds might be a problem.
- Long straw and stems are more readily anchored in place and afford seedling protection than does chopped straw or hay. Much of hay or straw may be tied down with commercial netting of various types or with asphalt emulsion or rubber asphalt at a rate of 100 to 150 gallons per acre. Application of cellulose, straw, or hay mulch at a rate of 800 to 1000 pounds per acre also is an excellent way to tack or hold the mulch in place.



COUNTY PARCEL NO.	30-00-00-28860-00-8
BLOCK - UNIT	305-001
SITE ADDRESS	Jenkintown, PA 19046
DEED BOOK/PAGE	DEB 1182 PG 0042
RECORD OWNER	DUKE REAL ESTATE PARTNERS, LLC
2010 County Line Road	Huntingdon Valley,

**CHARLES E. SHOEMAKER, INC.**  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABBINGTON, PA. 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
E-MAIL: [staff@ceshoemaker.com](mailto:staff@ceshoemaker.com)

DATE	NO	REVISION	BY

**SWITCHVILLE CROSSING**  
**CONSTRUCTION DETAILS**  
**WYNCOTE SUB-STATION**  
**Highland Avenue & Kenmore Avenue**  
PREPARED FOR  
**DUKE REAL ESTATE PARTNERS, LLC**  
ABBINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE	JANUARY 22, 2019
DWG NO.	A-9-415
JOB NO.	25348C
SHEET NO.	12 OF 14



# PATA 201 (Old PATA 24) - Notes

1. Traffic control devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2'-0" behind curb, or 15' or more from the edge of the roadway.
2. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.
3. When a shadow vehicle is not used, distance A is measured from sign to beginning of work space.

## Signs

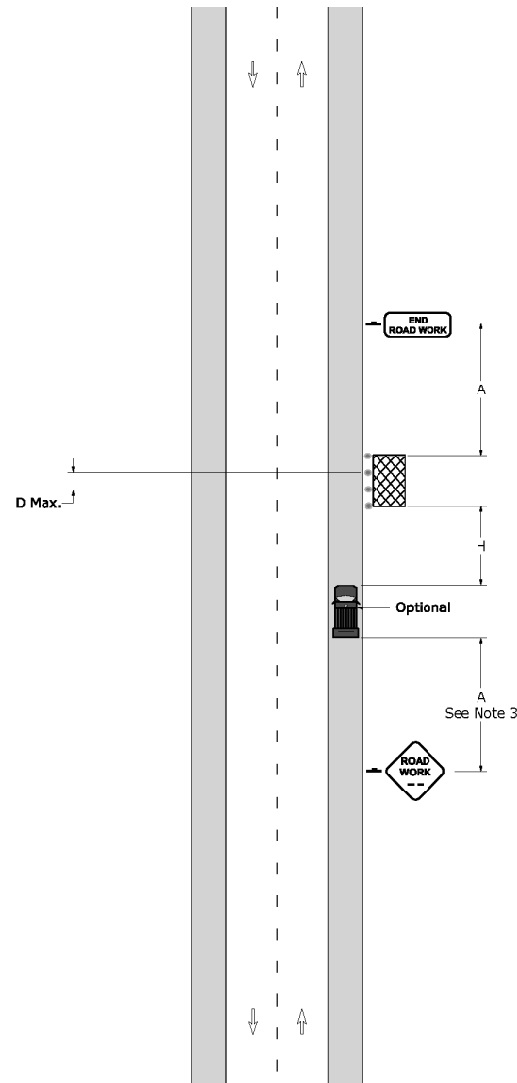


## Sign Spacing Chart

Condition	Distance				Speed MPH	W				L				Min. Channelizing Devices Per Taper Type (Length)				D				E			
	A	B	C	F		Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet		
Urban 35 MPH or less	100	100	100	100	25	10	115	25	25	6	6	6	6	6	6	6	6	50	155	150					
Urban Greater than 35 MPH	350	350	350	350	30	10	115	25	25	6	6	6	6	6	6	6	6	60	200	150					
Rural	500	500	500	500	35	10	115	25	25	6	6	6	6	6	6	6	6	70	250	150					
When multiple distance plaques are used on advance warning signs, they shall all be of the same series type. Example: either all "AHEAD" or XXX FEET.					40	10	120	35	35	6	6	6	6	6	6	6	6	80	205	150					
					45	10	140	40	40	6	6	6	6	6	6	6	6	90	300	150					
					50	10	160	45	45	6	6	6	6	6	6	6	6	100	350	150					
Taper Length Formulae																									
S = Regulatory Speed Limit W = Width of Taper L = Length																									
40 MPH or less	L = WS <sup>2</sup>				53	10	605	305	205	12	12	12	12	12	12	12	12	6	110	495	200				
45 MPH or less	L = WS <sup>2</sup>				53	10	605	305	205	12	12	12	12	12	12	12	12	6	110	495	200				

Note: Channelizing devices used in taper shall be equally spaced at 1/2 D Max.

# PATA 201 (Old PATA 24) Work Space Beyond Shoulder



# PATA 101 (Old PATA 5) - Notes

1. The shadow vehicle and traffic control devices are not required if the work space is outside the highway right-of-way, behind barrier, more than 2 behind curb, or 15' or more from the edge of any roadway.
2. For operations of 60 minutes or less, all traffic control devices may be eliminated if a shadow vehicle is present.
3. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.
4. When a shadow vehicle is not used, distance A is measured from the Road Work (W20-1) sign location to beginning of work space.

## Signs

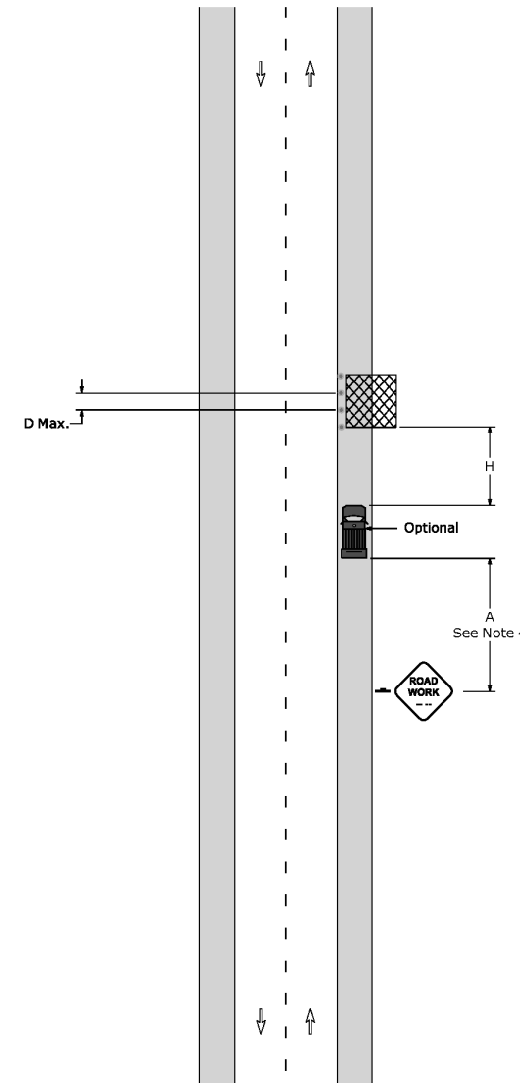


## Sign Spacing Chart

Condition	Distance				Speed MPH	W				L				Min. Channelizing Devices Per Taper Type (Length)				D				E			
	A	B	C	F		Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet			
Urban 35 MPH or less	100	100	100	100	25	10	115	60	35	6	6	6	6	30	155	150									
Urban Greater than 35 MPH	350	350	350	350	30	10	115	60	35	6	6	6	6	30	155	150									
Rural	500	500	500	500	35	10	125	60	35	6	6	6	6	30	155	150									
When multiple distance plaques are used on advance warning signs, they shall all be of the same series type. Example: either all "AHEAD" or "XXX FEET."					40	10	125	60	35	6	6	6	6	30	155	150									
					45	10	140	60	35	6	6	6	6	30	155	150									
					50	10	155	60	35	6	6	6	6	30	155	150									
					55	10	170	60	35	6	6	6	6	30	155	150									
					60	10	185	60	35	6	6	6	6	30	155	150									
Taper Length Formulae																									
S = Regulatory Speed Limit W = Width of Offset L = Length																									
40 MPH or less	L = WS <sup>2</sup>																								
45 MPH or more	L = WS																								

Note: Channelizing devices used in taper shall be equally spaced at 1/2 D Max.

# PATA 101 (Old PATA 5) Work Space On Or Beyond The Shoulder (No Roadway Encroachment)



# PATA 102 (Old PATA 7) - Notes

1. If the work space is completely within a parking lane and parking is present, the taper or shadow vehicle is not required.
2. For operations of 15 minutes or less:
  - a. The Road Work (W20-1) sign is not required.
  - b. All channelizing devices may be eliminated if a shadow vehicle is present.
3. For divided highways and one-way highways where it is physically possible, advance warning signs should also be placed on the left-hand side of the roadway.
4. When a shadow vehicle is not used, distance E is measured from end of taper to beginning of work space.

## Signs

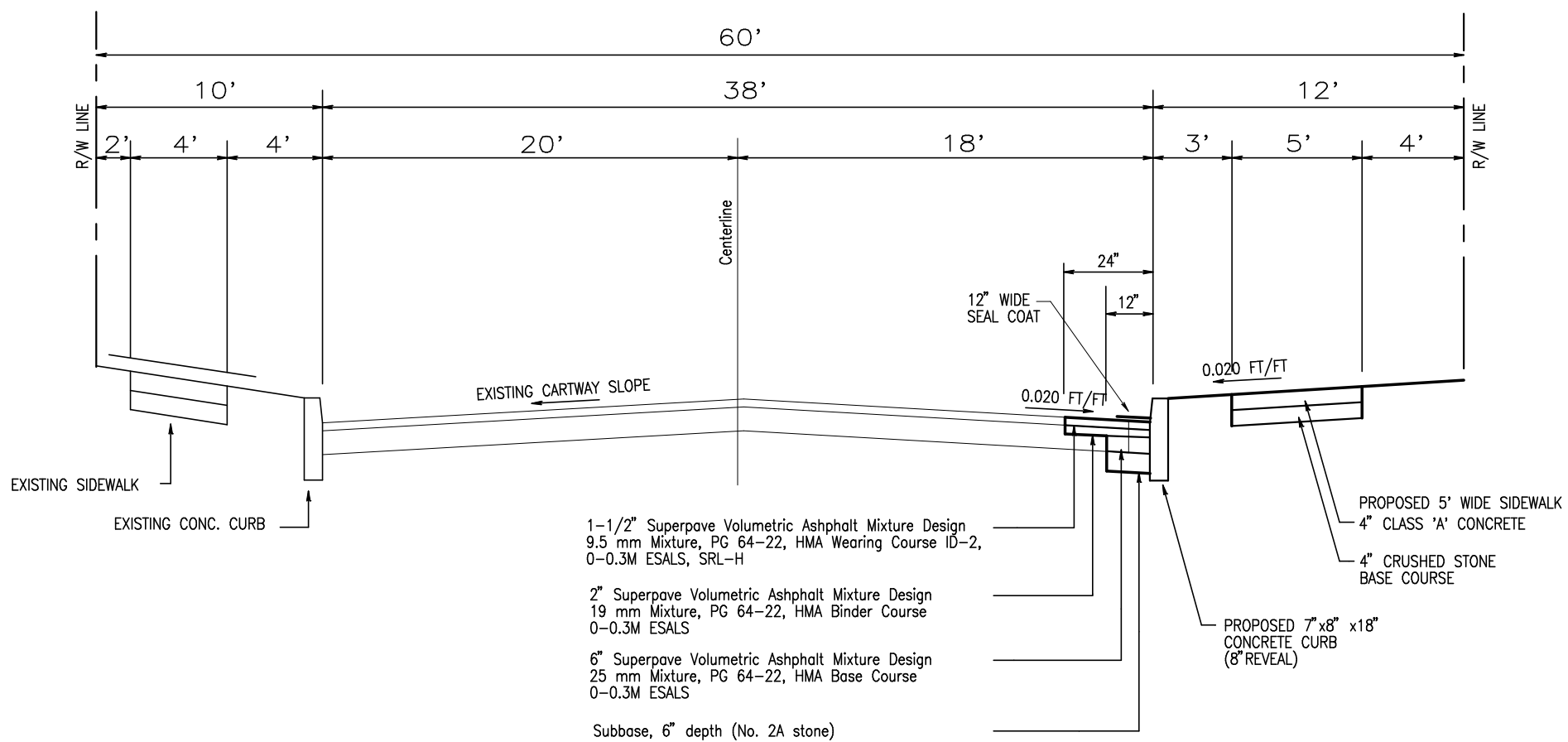
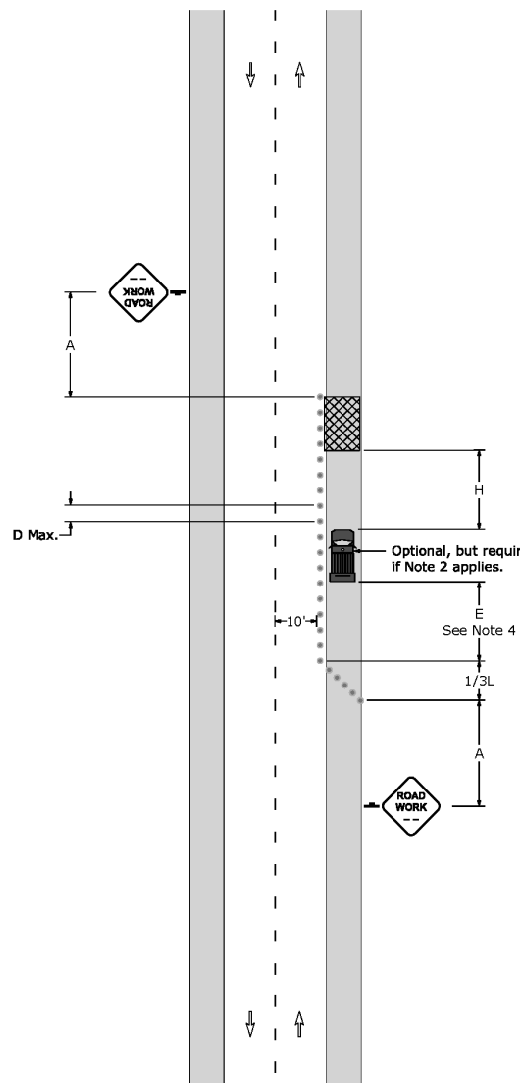


## Sign Spacing Chart

Condition	Distance				Speed MPH	W				L				Min. Channelizing Devices Per Taper Type (Length)				D				E			
	A	B	C	F		Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet			
Urban 35 MPH or less	100	100	100	100	25	10	115	62	40	3	6	6	6	6	6	6	6	50	155	150					
Urban Greater than 35 MPH	350	350	350	350	30	10	115	62	40	3	6	6	6	6	6	6	6	60	200	150					
Rural	500	500	500	500	35	10	180	90	60	7	6	6	6	6	6	6	6	70	250	150					
When multiple distance plaques are used on advance warning signs, they shall all be of the same series type. Example: either all "AHEAD" or XXX FEET.					40	10	230	130	80	8	6	6	6	6	6	6	6	80	300	150					
					45	10	250	130	80	8	6	6	6	6	6	6	6	80	300	150					
					50	10	290	130	80	8	6	6	6	6	6	6	6	80	300	150					
					55	10	330	130	80	8	6	6	6	6	6	6	6	80	300	150					
Taper Length Formulae																									
S = Regulatory Speed Limit W = Width of Offset L = Length																									
40 MPH or less $L = \frac{WS^2}{15}$																									
45 MPH or less $L = \frac{WS^2}{15}$																									
50 MPH or less $L = \frac{WS^2}{15}$																									
55 MPH or less $L = \frac{WS^2}{15}$																									

Note: Channelizing devices used in taper shall be equally spaced at 1/2 D Max.

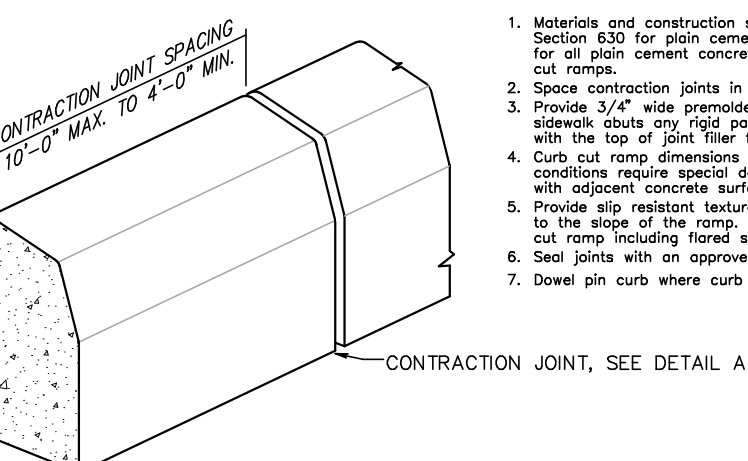
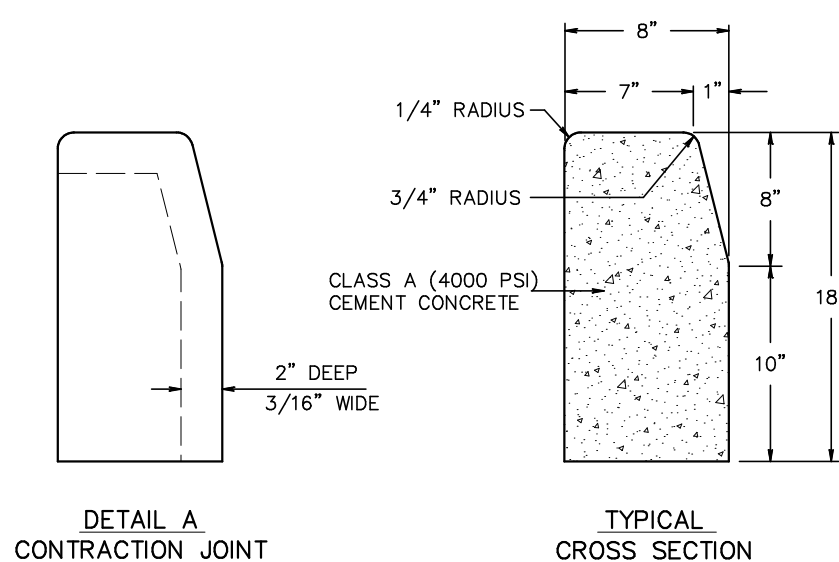
# PATA 102 (Old PATA 7) Work Space On Or Beyond The Shoulder (Minor Roadway Encroachment)



NOTE: HIGHWAY PERMIT (ROAD OPENING PERMIT) IS REQUIRED FROM ABINGTON TOWNSHIP BEFORE CONSTRUCTION STARTS.

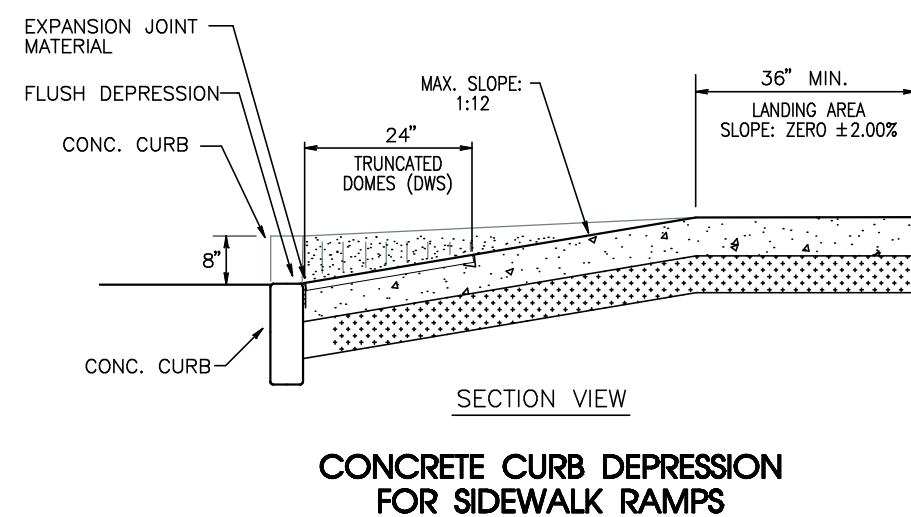
## NEW CURB & SIDEWALK HIGHLAND AVENUE CROSS SECTION (TWP. ROAD)

N.T.S.

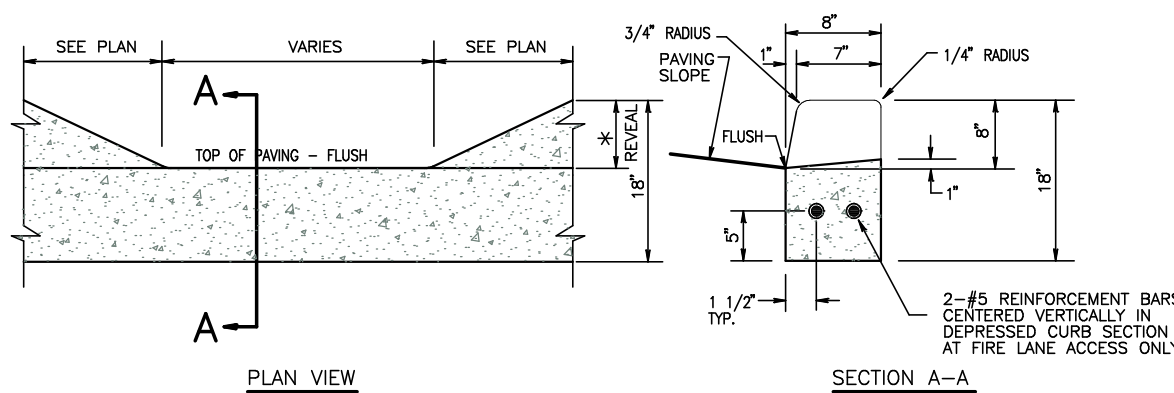


## (HIGHLAND AVENUE) PLAIN CEMENT CONCRETE CURB

N.T.S.



N.T.S.



## FLUSH ADA DEPRESSED CONCRETE CURB DETAIL

N.T.S.

# PATA 107 (Old PATA 10a) - Notes

1. Each flagger shall be clearly visible to traffic for a minimum distance of E and shall be in constant communication with all other flaggers.
2. For operations of 15 minutes or less:
  - a. The Road Work (W20-1), One Lane Road (W20-4), and Flagger Symbol (W20-7) signs are not required.
  - b. All channelizing devices may be eliminated if a shadow vehicle is present.
3. The buffer space shall be extended so that the two-way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.
4. When a shadow vehicle is not used, distance E is measured from end of taper to beginning of work space.

## Signs

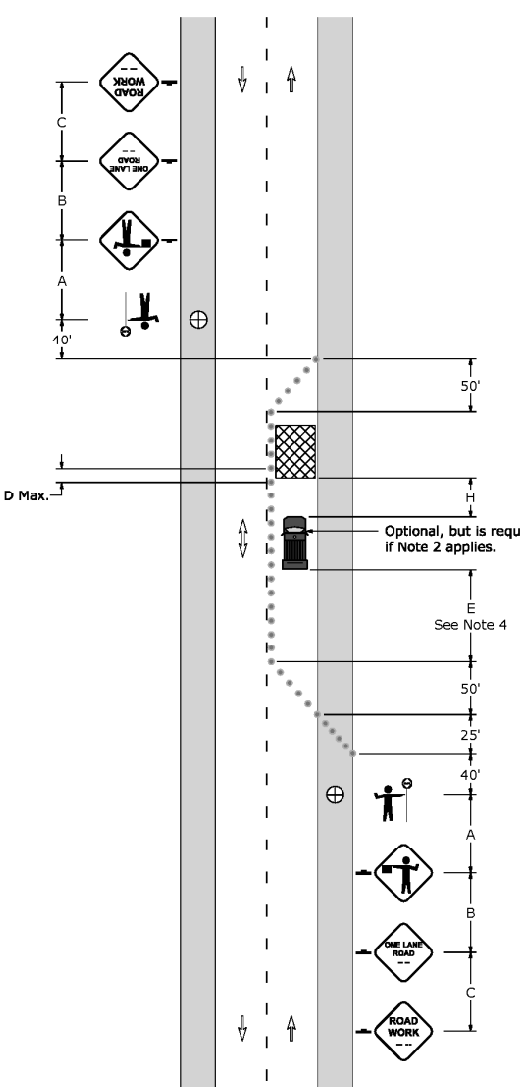


## Sign Spacing Chart

Condition	Distance				Speed	W				L				Min. Channelizing Devices Per Taper Type (Length)				D				E			
	A	B	C	F		Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet			
Urban 35 MPH or less	100	100	100	100	25	10	105	35	35	10	105	35	35	6	6	6	6	50	155	150					
Urban Greater than 35 MPH	350	350	350	350	30	10	105	35	35	10	105	35	35	6	6	6	6	60	200	150					
Rural	500	500	500	500	35	10	105	35	35	10	105	35	35	6	6	6	6	70	250	150					
When multiple distance plaques are used on advance warning signs, they shall all be of the same series type. Example: either all "AHEAD" or XXX FEET.																									
					40	10	220	60	60	10	220	60	60	6	6	6	6	80	305	150					
					45	10	220	60	60	10	220	60	60	6	6	6	6	80	305	150					
					50	10	220	60	60	10	220	60	60	6	6	6	6	80	305	150					
					55	10	220	60	60	10	220	60	60	6	6	6	6	80	305	150					
					60	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					65	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					70	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					75	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					80	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					85	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					90	11	495	250	125	12	7	495	250	125	7	7	6	6	100	360					
					95	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					100	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					105	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					110	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					115	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					120	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					125	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					130	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					135	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					140	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					145	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					150	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					155	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					160	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					165	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					170	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					175	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					180	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					185	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					190	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					195	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					200	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					205	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					210	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					215	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					220	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					225	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					230	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					235	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					240	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					245	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					250	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					255	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					260	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					265	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					270	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					275	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
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					285	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					290	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					295	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					300	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					305	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					310	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					315	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
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					330	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					335	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					340	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					345	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					350	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					355	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					360	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					365	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					370	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					375	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					380	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					385	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					390	12	660	300	200	13	7	660	300	200	13	7	6	6	110	495	250				
					395	12	660	300	200	13	7	660	300	200	13	7	6	6	110</						

Note: Channelizing devices used in taper shall be equally spaced at 1/2 D Max.

# PATA 107 (Old PATA 10a) Work In One Lane, Two Flaggers



## SWITCHVILLE CROSSING

HIGHLAND AVENUE DETAILS  
WYNCOATE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

DATE  
JANUARY 22, 2019  
DWG NO.  
A-9-415  
JOB NO.  
25348C  
SHEET NO.  
13 OF 14

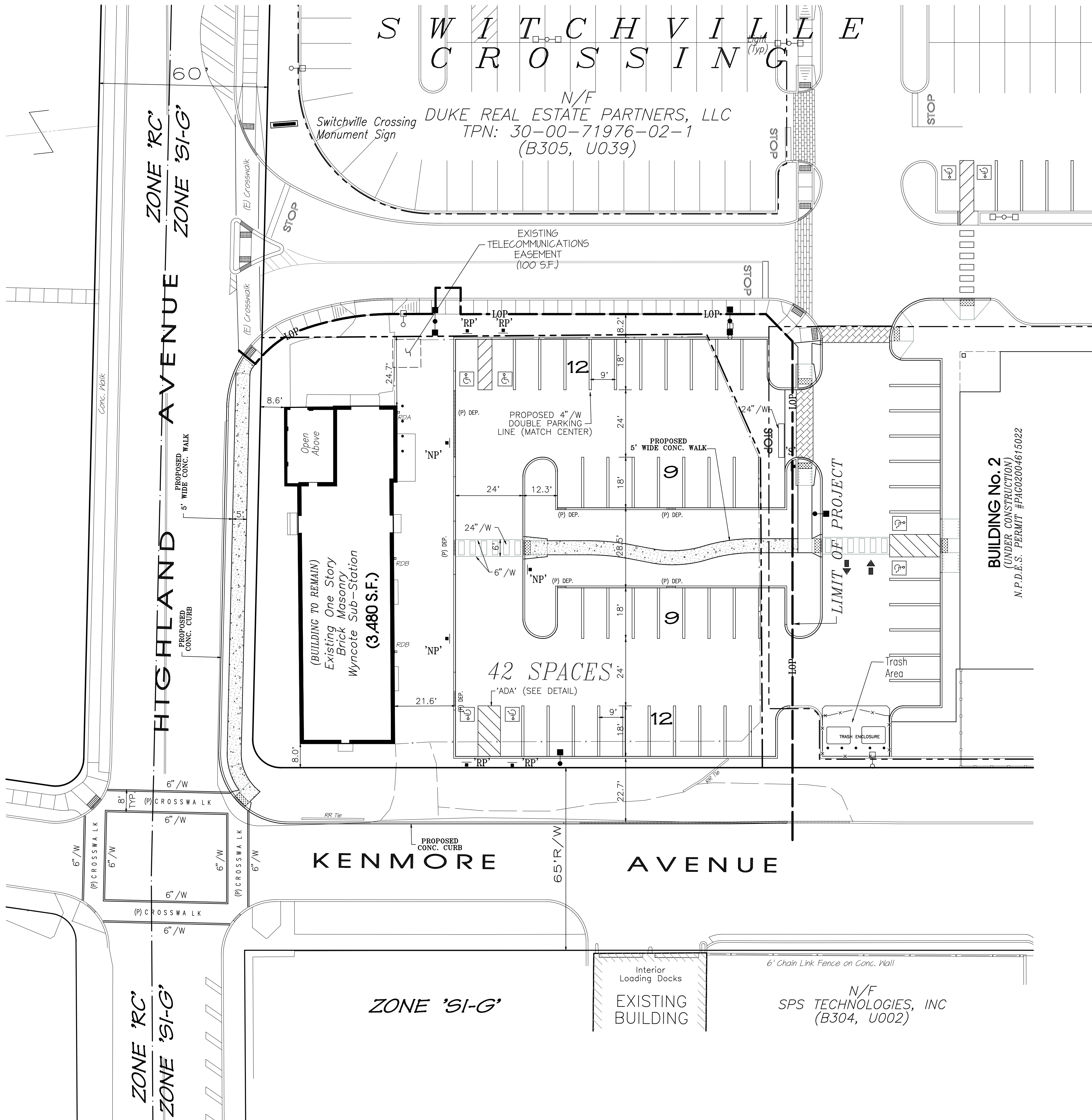
CHARLES E. SHOEMAKER, INC.  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD  
PHONE: 215-887-2165  
E-MAIL: staff@ceshoemaker.com

RECORD OWNER  
DUKE REAL ESTATE  
PARTNERS, LLC  
2010 County Line Road  
Huntingdon Valley, PA 19006

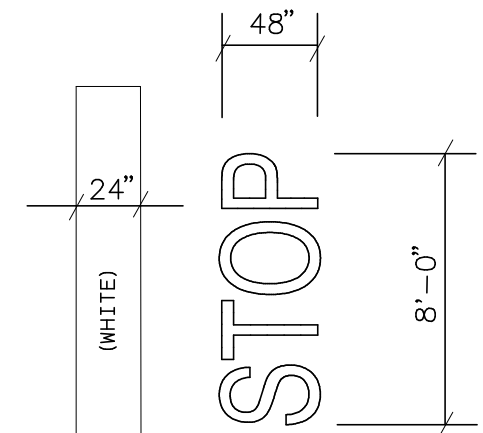
COUNTY PARCEL NO.  
30-00-28860-00-8  
BLOCK - UNIT  
305-001  
SITE ADDRESS  
Jenkintown, PA 19046  
DEED BOOK/PAGE  
DB 1182 PG 00442

COMMONWEALTH OF PENNSYLVANIA  
REGISTERED PROFESSIONAL  
RICHARD A. STONEBACK  
ENGINEER  
PE-024815-E

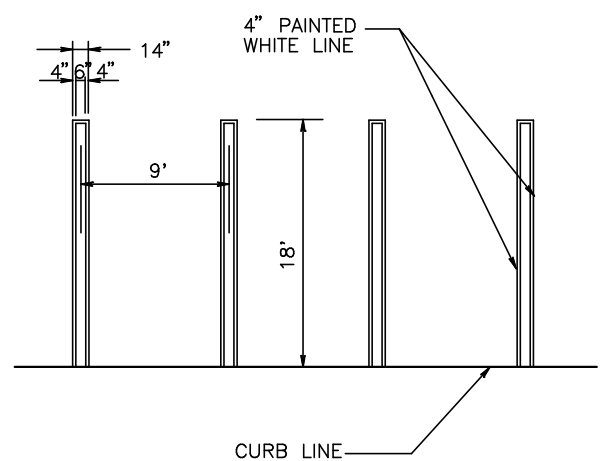




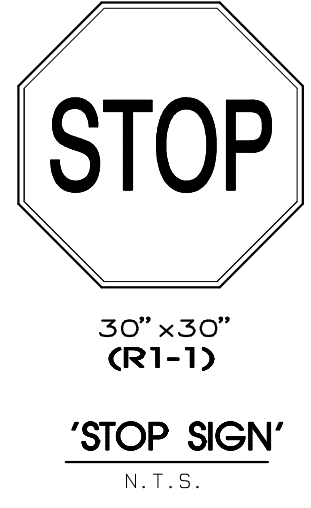
LEGEND	
EXISTING	PROPOSED
226-226.23 +226.23 +226.23 +226.23	226-226.23 +226.23 +226.23 +226.23
CONTOUR LINE	CONTOUR LINE
SPOT ELEVATION	SPOT ELEVATION
TOP & BOTTOM CURB ELEV.	TOP & BOTTOM CURB ELEV.
U/LT. STD.	STORM SEWER
FENCE LINE	RAIN GARDEN DRAIN
UTILITY POLE	CURB DEPRESSION
WATER VALVE	CONCRETE WALK
WATER CURB STOP	
GAS VALVE	
FIRE HYDRANT	UTILITY POLE
EXISTING SIGN	OVERHEAD WIRE
SANITARY SEWER	LIMIT OF PROJECT
STORM SEWER	TRAFFIC SIGN
OVERHEAD WIRE	PROPOSED LIGHT STD.
ELECTRIC CONDUIT	
GAS MAIN	
WATER MAIN	
COMMUNICATIONS CONDUIT	
SANITARY LATERAL	
WATER SERVICE	



STOP BAR DETAIL  
N.T.S.



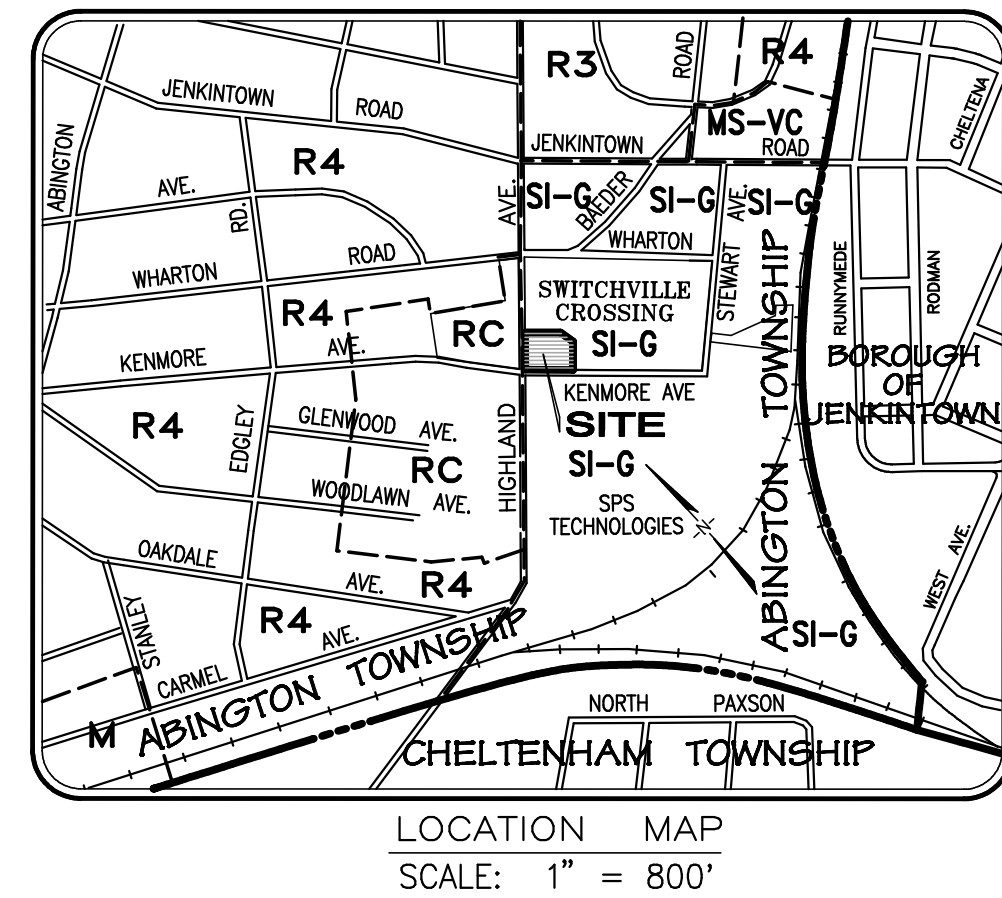
TYPICAL PARKING SPACE MARKING  
N.T.S.



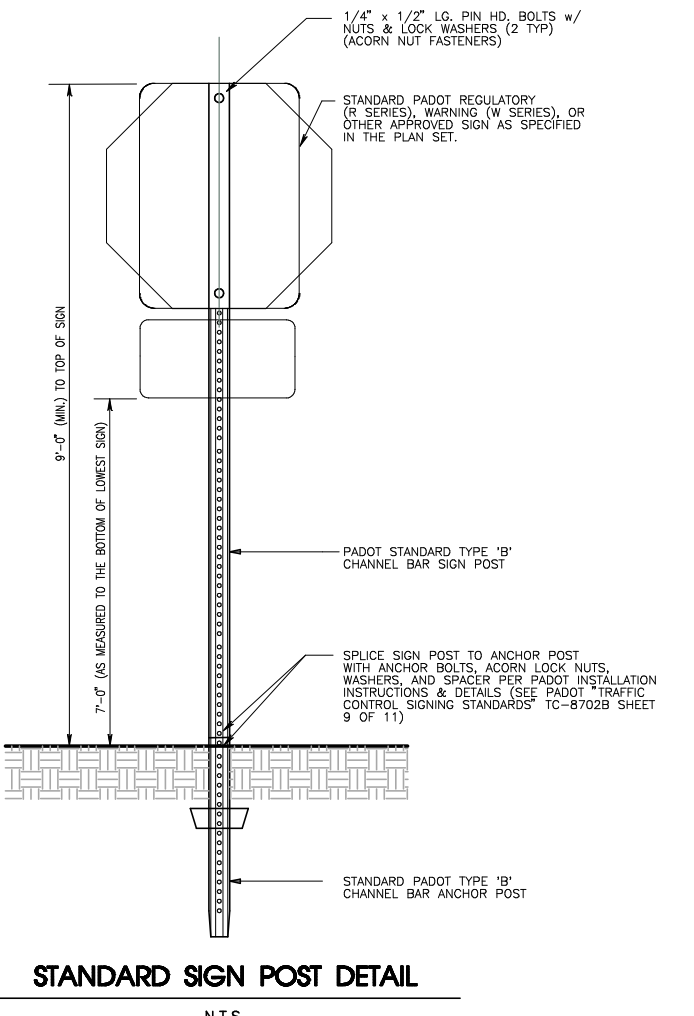
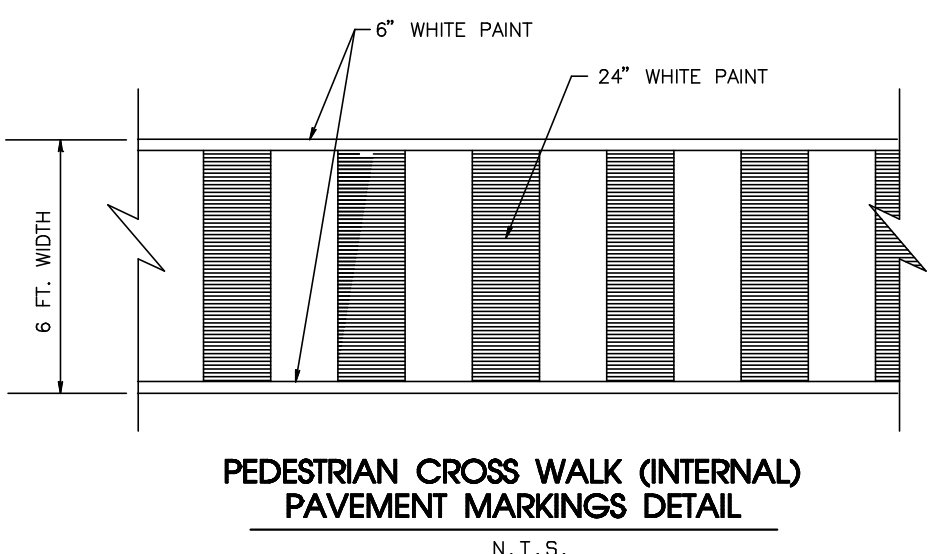
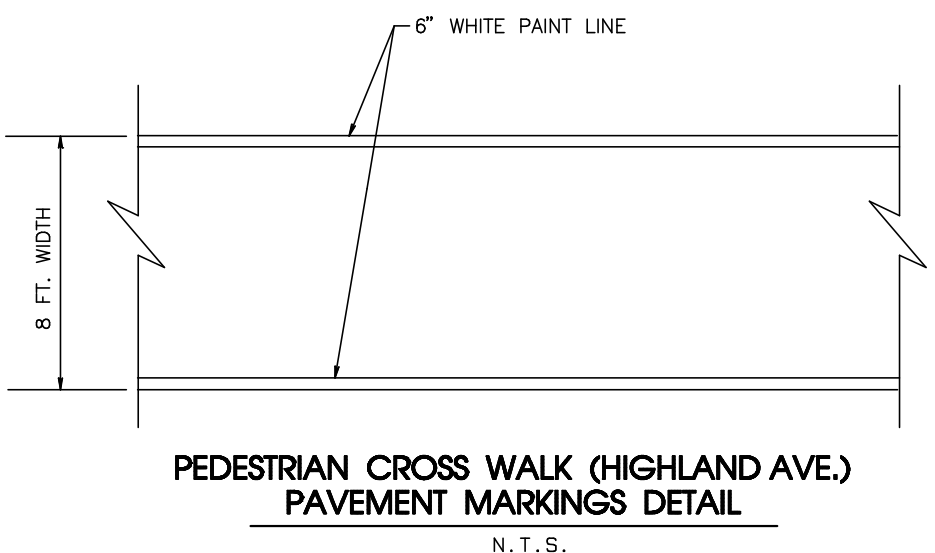
- SIGNAGE NOTES:
1. SIGNS TO BE IN COMPLIANCE WITH PLYMOUTH TOWNSHIP SUBDIVISION ORDINANCE SECTION 502.4
  2. SIGNS TO BE A MINIMUM SIZE OF 12" IN WIDTH AND 18" IN HEIGHT.
  3. SIGN TO BE DOUBLE SIDED AND PLACED PERPENDICULAR TO THE FLOW OF TRAFFIC.
  4. MINIMUM HEIGHT OF LETTERS IS THREE (3) INCHES.
  5. THE BOTTOM OF THE SIGN SHALL BE A MINIMUM OF SEVEN (7) FEET ABOVE THE PAVEMENT OR CURB.
- PAVEMENT MARKING NOTES:
1. MINIMUM WIDTH OF ANY PART OF A LETTER IS FOUR (4) INCHES.
  2. MINIMUM HEIGHT OF LETTER IS THIRTY-SIX (36) INCHES.
  3. MINIMUM LENGTH OF MESSAGE IS FIFTY (50) INCHES.
  4. WHERE A CURB ACTS AS A BOUNDARY TO A FIRE LANE, CURB TO BE PAINTED YELLOW.
- COLORS LEGEND:
- Legend & Border RED (NON-REFLECTORIZED)  
Background WHITE (REFLECTORIZED)

ABINGTON TOWNSHIP - NO PARKING SIGN  
Not To Scale

- NOTES:
1. POST MOUNTED SIGNS SHALL BE TYPE "B" CHANNEL BAR POSTS AND SHALL CONFORM TO PADOT "TRAFFIC CONTROL SIGN STANDARDS" TC-8702B SHEET 8 THRU 11 OF 11. APPROPRIATE POSTS SHALL BE SELECTED BASED ON THE SIZE OF THE SIGN USING THE SELECTION TABLES CONTAINED THEREIN.
  2. SIGN INSTALLATION SHALL BE IN ACCORDANCE WITH PADOT "TRAFFIC CONTROL SIGNING STANDARDS" TC-8702B SHEETS 8 THRU 11 OF 11 AS AMENDED.
  3. SEE CIVIL PLANS FOR EXACT LOCATION, TYPE AND SIZE OF SIGNS. ALL REGULATORY (R SERIES) SIGNS SHALL CONFORM TO THE PADOT "HANDBOOK OF APPROVED SIGNS", PUBLICATION 226M, AS AMENDED, UNLESS OTHERWISE SPECIFIED.
  4. SIGNS SHALL BE SETBACK 2.0' FROM CURBLINES OR OTHER OBSTRUCTIONS AS MEASURED FROM THE FACE/EDGE OF THE SIGN.
  5. ALL SIGNS SHALL BE INSTALLED WITH ACORN NUT FASTENERS.
  6. RESERVED PARKING SPACE SIGNS SHALL CONFORM TO DEPARTMENT OF JUSTICE "ADA" STANDARDS FOR ACCESSIBLE DESIGN AS AMENDED.



LOCATION MAP  
SCALE: 1" = 800'



TRAFFIC SIGN SCHEDULE			
KEY	DESCRIPTION	SERIES	SIZE
'S'	"STOP" SIGN	(R1-1)	30"x30"
'RP'	ADA "RESERVED PARKING"	(R7-8)	12"x18"
	ADA "VAN ACCESSIBLE"	(R7-8A)	12"x6"
	"VIOLATORS SUBJECT TO FINE"	(R7-8B)	12"x18"
'NP'	"NO PARKING FIRE LANE"	-	12"x18"

SITE AREA

AREA TO THE ULTIMATE RIGHT-OF-WAY LINES  
27,160 S.F. or 0.6235 AC.

OWNER OF RECORD	SITE ADDRESS	COUNTY PARCEL NO.	BLOCK/UNIT No.	DEED BOOK /PAGE No.
Duke Real Estate Partners, LLC	Highland Avenue	30-00-28960-00-8	30-305-001	1182-00442



COUNTY PARCEL NO. 30-00-28960-00-8  
BLOCK - UNIT 30-305-001  
SITE ADDRESS 2010 County Line Road  
Jenkintown, PA 19046  
DEED BOOK/PAGE DB 1182 PG 00442

RECORD OWNER  
DUKE REAL ESTATE PARTNERS, LLC  
2010 County Line Road  
Huntingdon Valley, PA 19006

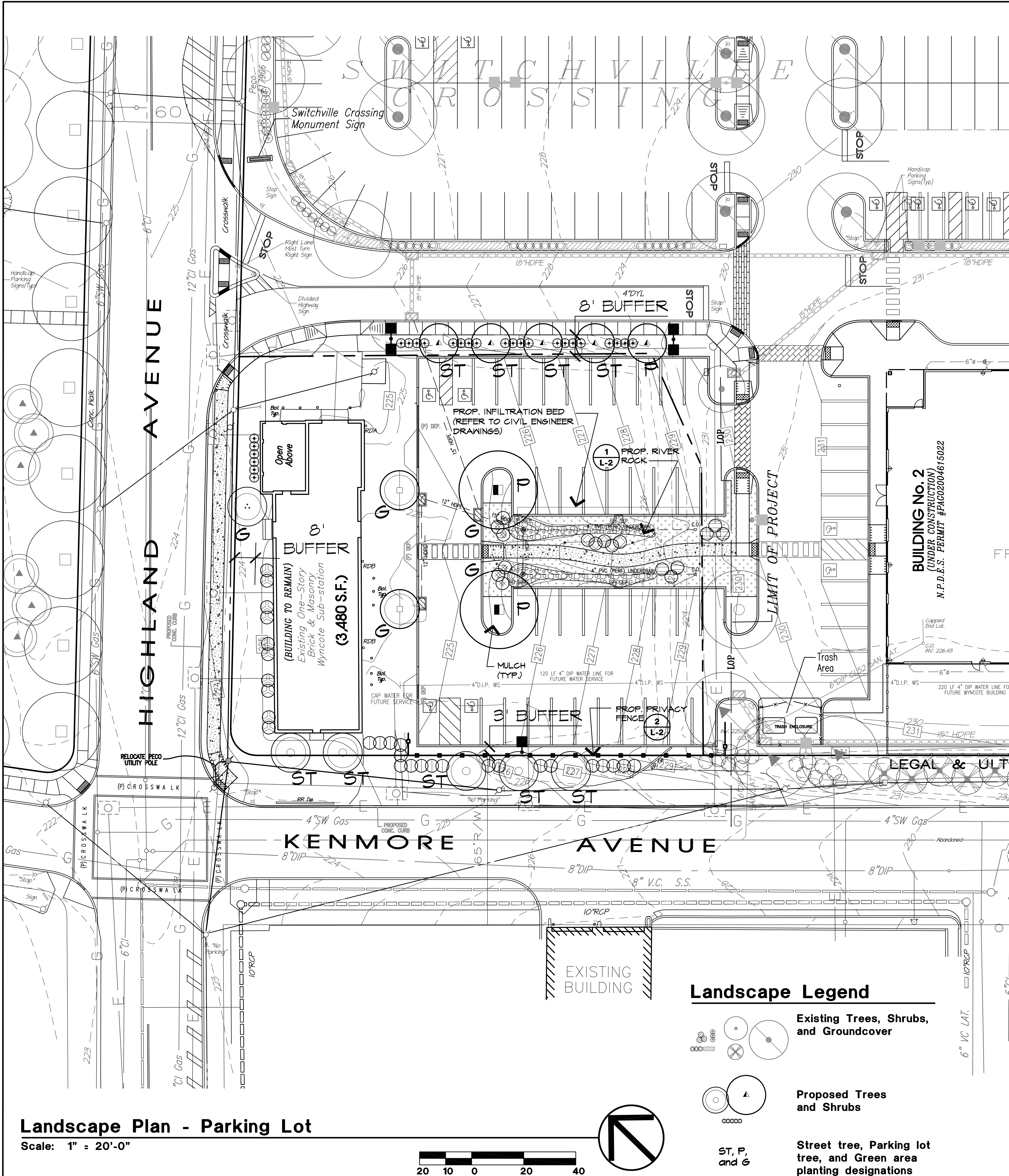
CHARLES E. SHOEMAKER, INC.  
ENGINEERS & SURVEYORS  
1007 EDGE HILL ROAD ABINGTON, PA. 19001  
PHONE: 215-887-2165 FAX: 215-576-7791  
E-MAIL: staff@ceshoemaker.com

DATE	NO.	REVISION	BY

SWITCHVILLE CROSSING  
PAVEMENT MARKINGS & SIGNAGE PLAN  
WYNCOATE SUB-STATION  
Highland Avenue & Kenmore Avenue  
PREPARED FOR  
DUKE REAL ESTATE PARTNERS, LLC  
ABINGTON TOWNSHIP, MONTGOMERY COUNTY, PA.

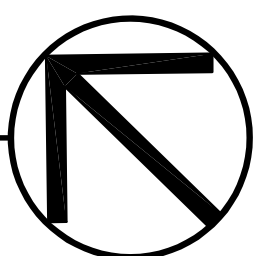
DATE JANUARY 22, 2019  
DWG NO. A-9-417  
JOB NO. 25348C  
SHEET NO. 14 OF 14





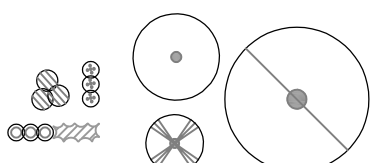
Landscape Plan - Parking Lot

Scale: 1" = 20'-0"

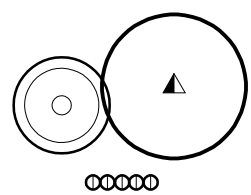


Landscape Legend

Existing Trees, Shrubs, and Groundcover



Proposed Trees and Shrubs



Street tree, Parking lot tree, and Green area planting designations

ST, P, and G

TOWNSHIP OF ABINGTON LANDSCAPE REQUIREMENTS  
SI-G Suburban Industrial District - Glenside

Type of Planting	Township Requirement	Amount of Landscaping Required	Amount of Landscaping Provided
Off-Street Parking (SALDO Section 146-39.B.(3)[2])	At least one 2 1/2" caliper deciduous or evergreen tree shall be planted within the parking area where the total number of parking spaces exceeds 10 stalls. An additional 2 1/2" caliper tree shall be planted for each additional 15 spaces or portion thereof.  <i>Building 4</i> : 42 proposed on-grade spaces	3 Deciduous or Evergreen Trees	3 Deciduous Trees
Parking Lot Perimeter Buffer	<i>150 LF parking lot facing Highland Avenue</i> (under SIG Zoning District, per Zoning Section 2403.B.7.d.(1), front yard buffer shall be a minimum of 8 feet wide)  <i>101 LF parking lot facing Kenmore Avenue</i> (under SIG Zoning District, per Zoning Section 2403.B.7.d.(1), side yard buffer shall be a minimum of 3 feet wide)  <i>91 LF parking lot adjacent to NE property line (access drive)</i> (under SIG Zoning District, per Zoning Section 2403.B.7.d.(2), front yard buffer shall be a minimum of 8 feet wide)  <i>150 LF parking lot adjacent to SE property line (Daycare)</i> (under SIG Zoning District, per Zoning Section 2403.B.7.d.(2), side yard buffer shall be a minimum of 3 feet wide)	<i>Medium Intensity Buffer Option B:</i> Min. 6' ht. opaque fence 15 shrubs  <i>Medium Intensity Buffer Option B:</i> Min. 6' ht. opaque fence 10 shrubs  <i>Medium Intensity Buffer</i> (See below for options)  <i>Medium Intensity Buffer</i> (See below for options)	Existing building 16 Shrubs  6' ht. opaque wood fence 19 Shrubs Earthen Berm  20 shrubs provided Common shared property line  Shared Parking with island peninsula separations
Parking Lot Landscaping (Zoning Sec. 2402.A.6.)	A minimum of 10% of any parking area over 15,000 square feet in gross area, outside curb to outside curb, shall be devoted to landscaping.	10% Parking Area Green Space	14% +/- Parking Area Green Space
Street Trees (Zoning Sec. 2402.B.)	Planted at a ratio of at least one tree every forty (40') linear feet.  <i>Highland Avenue - 153 +/- LF</i>  <i>Kenmore Avenue - 182 +/- LF</i> Trees permitted in R.O.W. per Zoning Section 2402.B.2.a. Exceptions. In certain cases, as follows, the Board of Commissioners may permit trees to be planted within the ultimate right-of-way: (1) In areas where front yards may be located within the ultimate right-of-way. (2) In cases where closely spaced rows of street trees may be desirable and future street widening is considered unlikely.	4 Deciduous Trees  5 Deciduous Trees	4 Deciduous Trees (Relocated to site driveway due to site constraints along Highland Ave)  5 Deciduous (Ornamental) Trees (due to overhead utility wires) (Trees located in street right-of-way)
Property Line Buffers (Zoning Section 2403.B.)	The minimum required landscape planting material per one hundred (100) feet of buffer length shall be determined by Figure 24.5 the chart in Zoning Section 2403.B.4. Minimum buffer width is determined per Zoning Section 2403.B.7.d. <i>Highland Avenue - 153 +/- LF</i> (8' wide front yard) Medium Intensity Buffer - Community Service/Institutional (Park) adjacent  <i>Kenmore Avenue - 182 +/- LF</i> (3' side side yard) Low Intensity Buffer - Industrial adjacent  <i>Northeast Property line - 158 +/- LF</i> (8' wide front yard) Low Intensity Buffer - Retail adjacent (Restaurant and Gym)  <i>Southeast Property line - 158 +/- LF</i> (3' wide side yard) Medium Intensity Buffer - Office/Community Service adjacent (Daycare)	<i>Medium Intensity Buffer Option B:</i> Min. 6' ht. opaque fence 15 shrubs  Low Intensity Buffer  Low Intensity Buffer  <i>Medium Intensity Buffer</i> (See below for options)	Existing building (Existing condition) 16 Shrubs  6' ht. opaque wood fence 19 Shrubs Earthen Berm (Buffer located within street R.O.W.)  20 shrubs provided Common shared property line  Shared Parking with island peninsula separations
Ground Cover (Green Area) Landscape Plantings (Zoning Section 2403.E.)	Minimum tree/shrub plantings for the area in ground cover area shall include a minimum of one deciduous or evergreen tree of two-and-one-half-inch caliper, measured at a height of three feet above grade for each 1,000 sf of ground cover area. Three evergreen shrubs of 2 1/2 feet in height may be substituted for one tree for a maximum of 50% of the tree requirement.	5,488 SF of green area  = 5 Trees (Dec. or EG) OR 3 Trees and 6 Evergreen shrubs (2 Tree equivalents)	3 Deciduous Trees 6 Evergreen shrubs
<b>Zoning Section 2403.B.4.(1) Low Intensity Buffer.</b> A low-intensity buffer is intended to soften the impact of a land development without significantly blocking the view. It includes the following elements per 100 L.F.: 1 canopy tree (2-2 1/2" minimum caliper), 2 understory trees (1 1/2" minimum caliper), and 2 evergreen trees (8' minimum height).			
<b>Zoning Section 2403.B.4.(2) A medium-intensity buffer</b> is intended to partially obscure the view of a land development or provide a degree of privacy. It may consist of any of the following options: <i>Option A:</i> 2 canopy trees (2-2 1/2" minimum caliper), 2 understory trees (1 1/2" minimum caliper), 5 evergreen trees (8' minimum height), and 5 shrubs (24" minimum height) per each 100 linear feet. <i>Option B:</i> A decorative, opaque wall or fence. A fence or wall, 6 feet in height. Where the fence or wall faces a public street, shrubs shall line the outside of the fence or wall at a ratio of 10 shrubs per 100 linear feet. No more than 50% of the shrubs shall consist of any one species; they may be grouped informally or spaced evenly.			
<b>Zoning Section 2403. B.3.c.</b> Each property line buffer area shall be located upon the lot or tract on which the use requiring the buffer is located. Exception: buffers may be developed on the adjacent property if an easement is used and permission is granted by the land owner; in such a case, buffers must comply with all zoning requirements.			
<b>Zoning Section 1203. H. Rights-of-Way.</b> In the SI-G Suburban Industrial-Glenside District, buffers may be located within existing or proposed street rights- of-way, provided (a) the streets are not likely ever to be widened because of their location and adjoining land uses, as determined by the Township, (b) the proposed buffer faces a nonresidential district or existing residential uses. Further, only a Low Intensity screen shall be required between any site element in the zoning district and any property line, provided the property line abuts property used for industrial purposes or a public street which has an existing industrial use located across from it.			



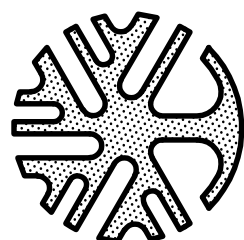
BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776  
NON-MEMBERS MUST BE CONTACTED DIRECTLY  
PA ACT 172 (1986) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.  
  
OSHA 1926.651 Special Excavation Requirements  
(d) Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., sewer, telephone, water, gas, electric, cable, etc., are present in the area. If they are, the excavation shall be stopped until they are located. When the excavation is stopped, the excavator shall be notified by the utility company. The location shall be determined and when it is uncovered, proper support shall be provided for the existing installation. Utility companies shall be notified of any excavation. Utility to the START OF ACTUAL EXCAVATION.  
  
OUTSIDE PENN. OR IN THE PITTSBURGH AREA WE CAN ALSO BE REACHED AT 412-323-7100

Revision Description

Wyncote Sub-station  
Highland Avenue and  
Kenmore Avenue  
Abington Township  
Montgomery County  
Pennsylvania

Project Title

McCloskey & Faber, P.C.  
Landscape Architecture  
Land Planning  
831 Dekalb Pike, Blue Bell, PA 19422-1271  
(610) 277-9200 FAX (610) 277-9203



Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.

Sheet Title

Landscape Plan

Scale As Shown  
Date 01/22/2019  
Drawn By KJF  
Project No. 1246.08

L-1



Project: 1000-25-2019 - 1-2-2020  
Draw Name: S:\1246-08\_Schenerville - Bldgs 2 and 4\DWG\1246-08\_Landscape Plan-2019-01-22.dwg  
User: BJS  
Date: 01/22/19  
Title: Landscape Architecture  
Project: 1000-25-2019 - 1-2-2020  
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User: BJS  
Date: 01/22/19  
Title: Landscape Architecture

Plant Schedule

Symbol	Botanical Name	Common Name	Quantity	Height	Spread	Caliper	B&B	General Comments
SHADE TREES								
■	GLEDITSIA TRIACANTHOS var INERMIS 'SKYLINE'	SKYLINE HONEYLOCUST	2	14 - 16'	8 - 10'	2 1/2 - 3"	YES	HEAVY, MATCHED SPECIMEN, CLEAR TRUNK TO 7', SINGLE LEADER
▲	ZELKOVA SERRATA 'MUSASHINO'	MUSASHINO ZELKOVA	5	12 - 14'	5 - 6'	2 1/2 - 3"	YES	HEAVY, MATCHED SPECIMEN, CLEAR TRUNK TO 7', SINGLE LEADER
③	QUERCUS ROBAR X BICOLOR 'LONG'	REGAL PRINCE OAK	2	12 - 14'	5 - 6'	2 1/2 - 3"	YES	HEAVY, MATCHED SPECIMEN, CLEAR TRUNK TO 4', SINGLE LEADER
ORNAMENTAL TREES								
⊙	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	1	8 - 10'	5 - 6'	-	YES	HEAVY, MULTI-STEM, MINIMUM 5 MAJOR TRUNKS
⊙	SYRINGA RETICULATA 'IVORY SILK'	IVORY SILK JAPANESE TREE LILAC	5	10 - 12'	3 - 4'	2 1/2 - 3"	YES	HEAVY, MATCHED SPECIMEN, SINGLE LEADER
SHRUBS								
①	VIBURNUM X BURKWOODII 'MOHAWK'	MOHAWK VIBURNUM	19	30 - 36"	24 - 30"	-	7 GAL.	HEAVY, SPECIMEN, PLANT 4'-0" IN 2" CONTINUOUS MULCH BED
⊙	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	6	18 - 24"	18 - 24"	-	3 GAL.	HEAVY, SPECIMEN, PLANT 3'-5" IN 2" CONTINUOUS MULCH BED
⊕	ROSA 'RADRAZZ'	RADRAZZ' KNOCK OUT ROSE	26	18 - 24"	24 - 30"	-	3 GAL.	HEAVY, SPECIMEN, PLANT 3'-0" IN 2" CONTINUOUS MULCH BED
⊙	VIBURNUM DENTATUM 'CHRISTOM'	BLUE MUFFIN ARROWWOOD VIBURNUM	10	24 - 30"	24 - 30"	-	5 GAL.	HEAVY, SPECIMEN, PLANT 4'-0" IN 2" CONTINUOUS MULCH BED
⊙	ILEX VERTICILLATA 'WINTER RED'	WINTER RED WINTERBERRY (provide one Southern Gentleman)	6	24 - 30"	18 - 24"	-	5 GAL.	HEAVY, SPECIMEN, PLANT 4'-0" IN 2" CONTINUOUS MULCH BED
⊙	ITEA VIRGINICA	VIRGINIA SWEETSPIRE	5	18 - 24"	18 - 24"	-	3 GAL.	HEAVY, SPECIMEN, PLANT 3'-0" IN 2" CONTINUOUS MULCH BED
GROUNDCOVERS								
■	-	MIX OF ORNAMENTAL GRASSES AND PERENNIALS TBD	1800 SF	-	-	-	-	SPACED AT 12 - 15" ON CENTER DEPENDENT UPON PROPOSED SPECIES
-	-	-	-	-	-	-	-	-

Planting Specifications:

- The contractor shall notify the Owner to select and seal plant material at the nursery and the Landscape Architect to stake plant material locations at the site before delivery.
- The Contractor shall furnish, deliver, and install plant material. The term plant material shall mean trees, shrubs, ground cover, and other growing plants to the extent of the Plant Schedule and as shown on Drawings.
- Inspection of Planting Beds – The Contractor shall inspect planting areas before topsoiling or planting is begun to insure that adequate drainage exists. If areas to be landscaped show evidence of poor drainage, the Contractor shall notify the Owner immediately for corrective action. Plant material that dies due to poor or inadequate drainage shall be the responsibility of the Landscape Contractor.
- Shrubs and ground cover shall be placed in continuous mulched beds 2" in depth. Mulch shall be reprocessed, twice shredded oak bark, aged one year.
- Trees, shrubs and ground cover shall be as specified and installed in accordance with the details and comments noted on the Drawings.
- Proposed and relocated plant material shall be guaranteed for 12 (twelve) months from date of completion of installation and acceptance by owner.
- Pre-emergence herbicide such as "Treflan" shall be applied to planting beds according to manufacturer's recommendation (prior to placement of mulch). A second application of pre-emergence herbicide shall be included as part of this work.
- Topsoil for planting is available on site. Backfill material shall meet the requirements described in Section 9.
- Container grown and B & B shrubs, evergreen and deciduous, are to be planted with super absorbent copolymer and soil wetting agents such as "Supersorb C" and "Aquaagro 20S" as manufactured by Aquatrols, (800) 257-7797. Additives are to be applied per the manufacturers recommendations.

Planting Specifications (continued):

- Backfill material for backfilling around tree balls shall be a mixture by volume of the following materials in quantities specified: 1/5 peat moss, 4/5 topsoil. Add 15 lbs. of 20-10-5 fertilizer per cubic yard of backfill. Backfill material by analysis shall have at least 15% organic matter.
- The Landscape Contractor shall maintain plantings prior to the beginning of the guarantee period by watering, fertilizing, disease control, pruning, weeding, and replacement of dead, stolen, or unacceptable materials, etc., so as to keep the completed work and/or incomplete work in clean and neat condition at all times.
- Review of the work to determine its completion for beginning the one-year guarantee period will be made by the Owner and Landscape Architect upon written notice requesting such review, submitted by the contractor at least ten (10) days prior to the anticipated date.
- After review, the Contractor will be notified of the date that the work has been approved for beginning the guarantee period or, if there are any deficiencies, a list of work items to be corrected prior to the beginning of the guarantee period.
- The Landscape Contractor shall guarantee that plants shall be in vigorous and thriving condition at the end of the guarantee period. Should plants appear to be in poor health or lack normal growth habit, they shall be removed at once and replaced in a manner and time as hereinbefore specified.
- Within the guarantee period, the Landscape Contractor will notify the Owner of any maintenance practices being followed or omitted which would be detrimental to the healthy, vigorous growing condition of plants.
- The Landscape Contractor shall notify Owner and Landscape Architect upon completion of guarantee and request full inspection prior to final acceptance of work.

Sodding Specifications: (Not In Contract)

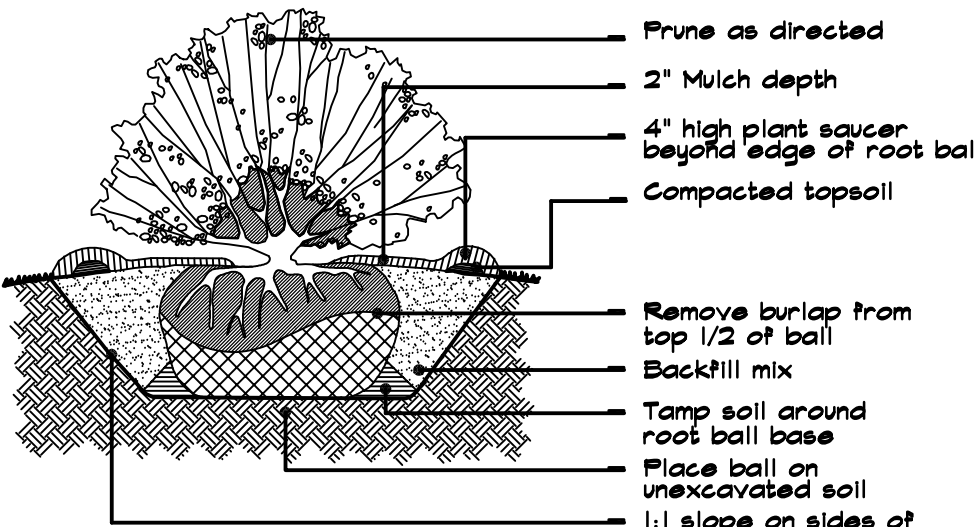
- The Landscape Contractor shall supply materials, tools, equipment and labor necessary for the completion of work as specified herein and as shown on the Drawings, to include finish grading of areas to be sodded, sodding, and guaranteeing the survival of lawn for one (1) calendar year from the date of written acceptance.
- Sodding shall commence between August 15 and October 15, or between March 15 and May 15, as weather permits and/or as approved by the Landscape Architect.
- The General Contractor shall rough grade berms and spread topsoil from soil available on site. The Landscape Contractor shall finish grade lawn areas, removing all debris and stones larger than 1" from the Site. Finish grading is to be inspected by the Landscape Architect prior to planting of sod.

Topsoil Specifications:

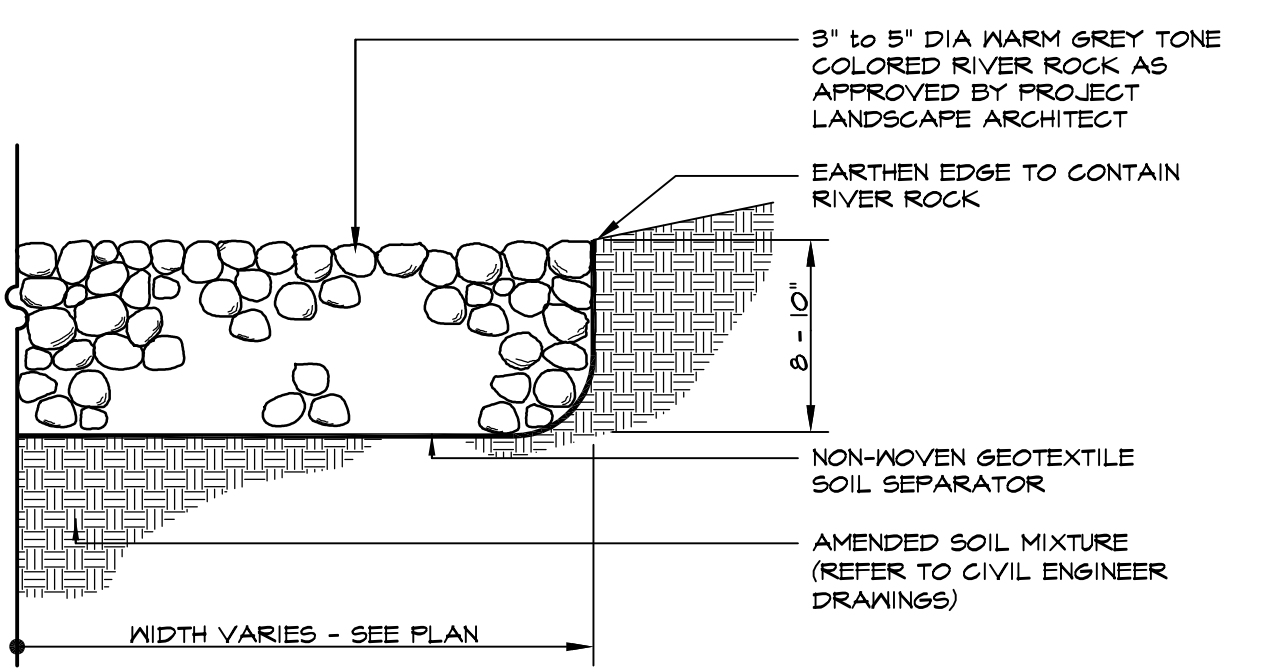
- Topsoil shall have a soil classification of a silty loam or sand loam. It shall have a pH factor between 5.5 to 7.0 without mixture of sub-soil. The topsoil shall be clean and free of clay lumps and shall be free of all stones, roots and deleterious substances one (1") inch or more in diameter. There shall be a minimum of six (6") inches of topsoil rototilled into all planting beds.

Seeding Specifications:

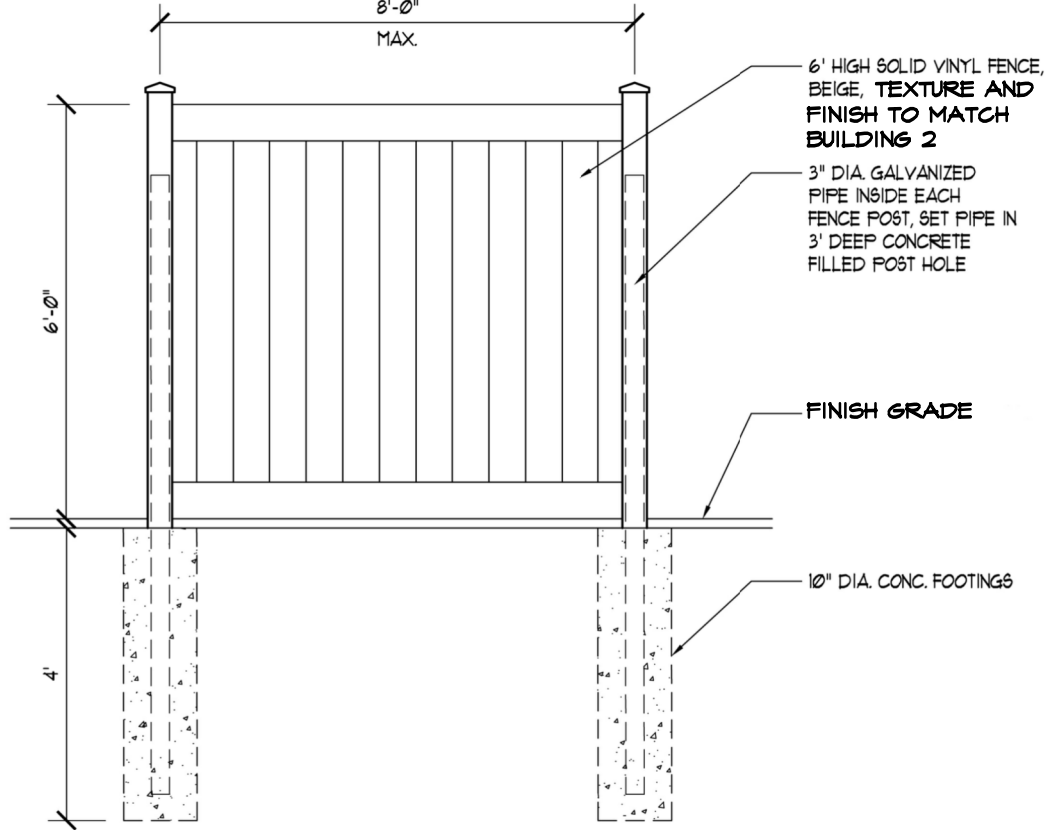
- TIMING:** Seeding shall commence between August 15 and October 15, or between March 15 and May 15, as weather permits and/or as approved by the Landscape Architect.
- FINISH GRADING:** The General Contractor will perform rough grading and spreading of topsoil including mounding of curbed islands. The Landscape Contractor shall fine grade lawn areas and remove debris and stones larger than 1" from the Site. Finish grading is to be inspected by the Landscape Architect prior to sod planting.
- SEED AREA LIMITS:** Areas disturbed by the Building Contractor and not otherwise paved or to be paved shall be grubbed, soiled, regraded to match surrounding area, and seeded, fertilized, and mulched by the Landscape Contractor. Limits of lawn work shall be determined in the field based on a site inspection by the Owner and Landscape Contractor.
- FERTILIZER:** Fertilize with 30 lbs. of 10-6-4 per 1,000 sq. ft.
- MULCH:** Mulch newly seeded areas with hay or straw at the rate of 40 lbs. per 1,000 sq. ft., or 1,750 lbs. per acre. Provide mulch tackifier.
- SEED MIX:** Seed shall be a mixture of the following varieties: 34% Creeping Red Fescue 33% Perennial Ryegrass 33% Kentucky Bluegrass Sow the above mixture (available from Pennington Seed, Inc. as "Tri-Plex General Mixture") at 4 lbs. per 1,000 sq. ft.
- MAINTENANCE BEFORE GUARANTEE PERIOD:** Lawn work shall be maintained by the Landscape Contractor until full germination is accomplished and the lawn has been cut twice. If required, the contractor shall reseed, resoil, referfertilize, remulch, etc. until a satisfactory stand of grass is achieved.
- EROSION CONTROL MATTING:** Soil erosion shall be controlled by installing North American Green erosion control matting per manufacturers instructions on any slope greater than 4:1. Refer to manufacturer's specifications for the required staple pattern as dictated by slope gradient and soil conditions.



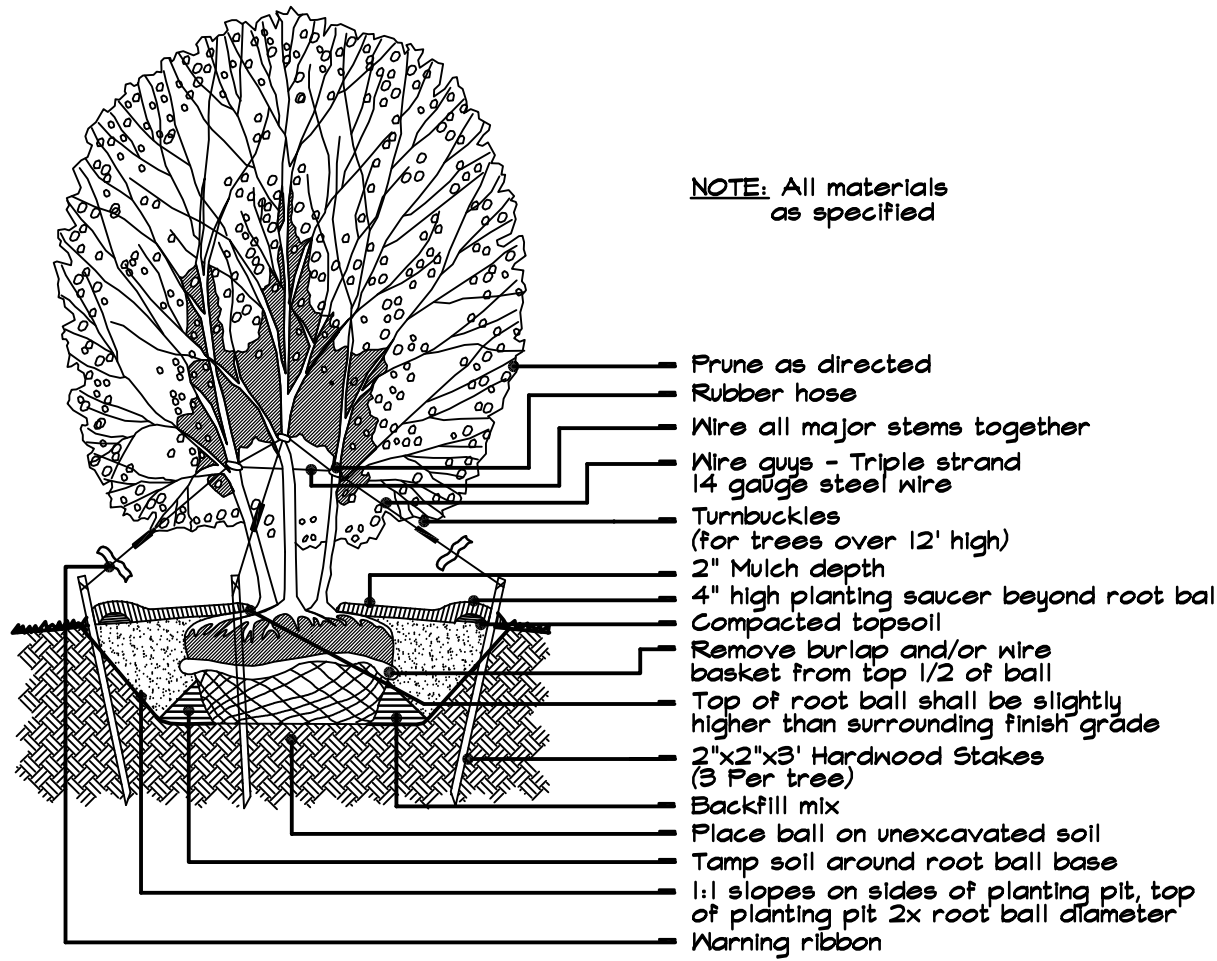
Typical Shrub Planting Detail  
Not to Scale



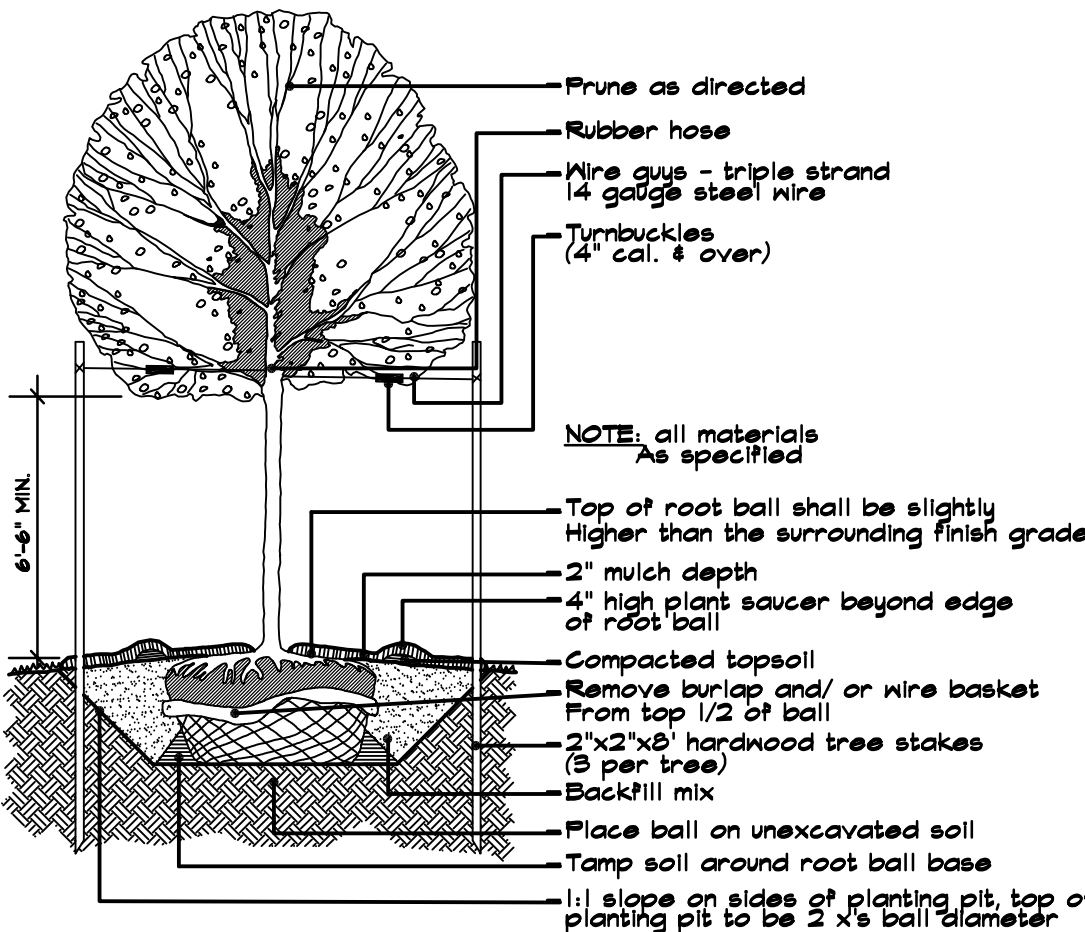
1 River Rock Detail  
Not to scale



2 Proposed Privacy Fence Detail  
Not to Scale



Typical Multi-Stem Tree Planting Detail  
Not to Scale



Typical Deciduous Tree Planting Detail  
Not to Scale



BEFORE YOU DIG ANYWHERE IN PENNSYLVANIA! CALL 1-800-242-1776  
NON-MEMBERS MUST BE CONTACTED DIRECTLY  
PA ACT 172 (1986) REQUIRES THREE WORKING DAYS NOTICE TO UTILITIES BEFORE YOU EXCAVATE, DRILL, BLAST OR DEMOLISH.

OSHA 1926.851 Special Excavation Requirements  
(a) Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., sewer, telephone, water, gas, electric, cable, etc., are located. When the excavation approaches the estimated location of such an installation, the exact location shall be determined and when it is uncovered, proper supports shall be provided for the existing installation. (b) STOP TO THE START OF ACTUAL EXCAVATION.

OUTSIDE PENNIA. OR IN THE PITTSBURGH AREA WE CAN ALSO BE REACHED AT 412-323-7100

Revision Description

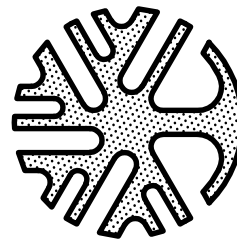
Wyncote Sub-station  
Highland Avenue and  
Kenmore Avenue  
Abington Township  
Montgomery County  
Pennsylvania

Project Title

McCluskey & Faber, P.C.  
Landscape Architecture  
Land Planning

831 Dalka Pike, Blue Bell, PA, 19422-1271  
(610) 277-9200 FAX (610) 277-9203

Existing site conditions and dimensions shall be verified by Contractor and the Consultant notified of any discrepancies before proceeding with construction.



Sheet Title

Landscape  
Details

Scale As Shown

Date 01/22/19

Drawn By KJF

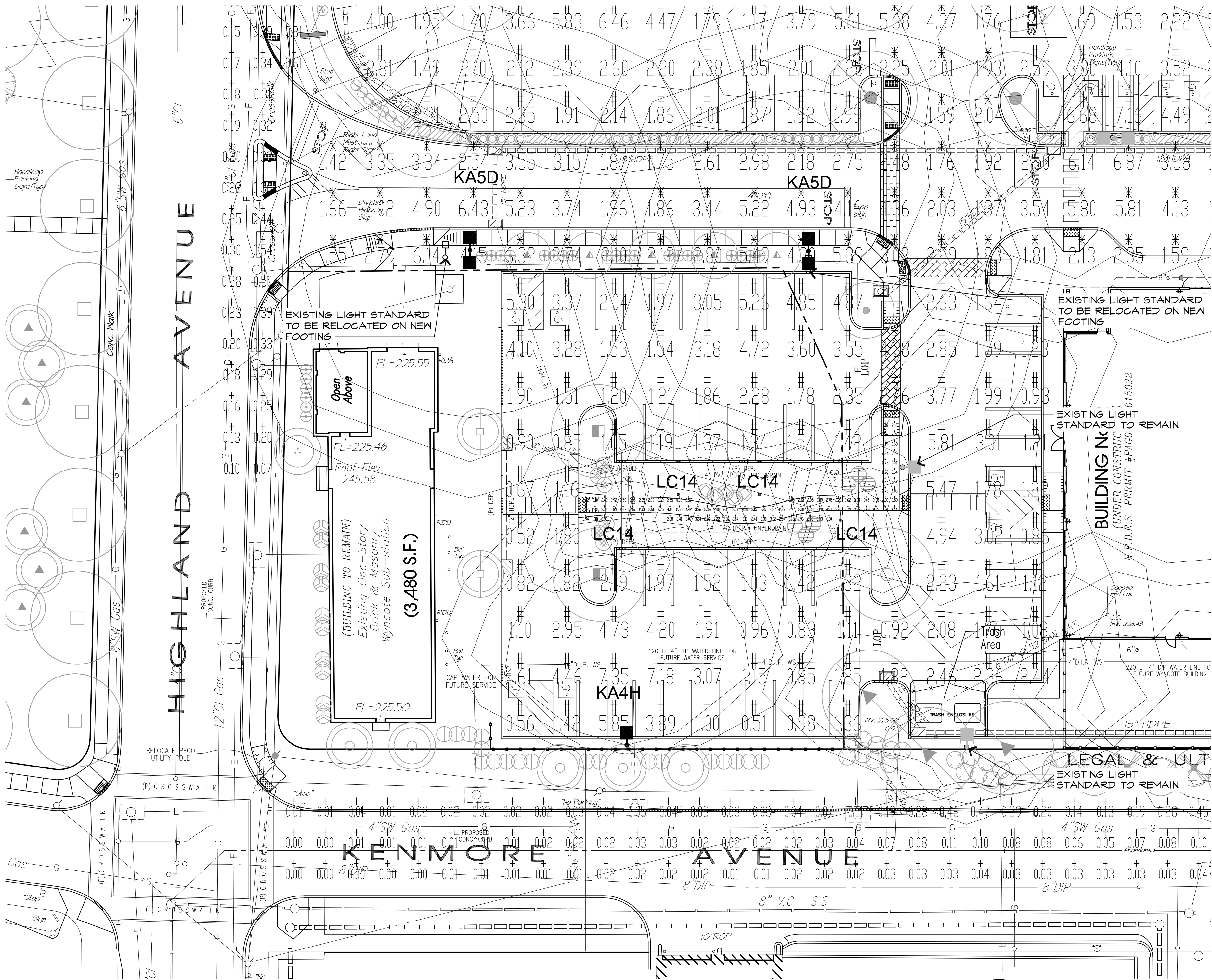
Project No. 1246.08

L-2



Site Lighting Schedule

Abbrev.	Manufacturer	Description	LLF	Color Temp.	Mounting Height (Ft.)	Footing Height (Ft.)	Total Height to Top of Luminaire	Luminaire Catalog Number	Special Notes
(Quant.)	Fixture							Pole Catalog Number	
KA4H (1)	KIM Archetype	Full Cutoff Type 4 LED Luminaire with 16' pole and Neighbor Friendly Optics, 187 watts	0.90	4,000K	17.5	2.5	18.0	1A-AR4-P70-80L-4K-480-PS-A25-7-NFO-SVSF HAPCO SSA16F4-4-KIM PLATINUM SILVER	Test File AR4P70-8 at 16,509 Lumens
KA5D (2)	KIM Archetype	(2) Full Cutoff Type 5 LED Luminaires on Existing Pole with NEW Footing, 187 watts	0.90	4,000K	20.0	2.5	20.7	(2)2B-AR5-P70-80L-4K-480-PS-A25-7-SVSF Existing Pole on NEW footing, shifted location.	Test File AR5P70-8 at 19,238 Lumens. Existing HID fixture to be removed and delivered to Owner.
LC14 (4)	BEGA 84 064	Full Cutoff Type 5 LED Luminaire integral to 14' pole, 44 watts	0.80	4,000K	13.2	Direct Bury	14.0	84-064-HEIGHT 14.0 FEET NOTE: Custom Height, 14' to top of pole.	Test File 84064 at 2,241 Lumens

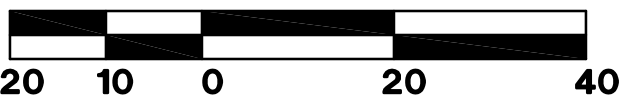


Site Lighting Plan - Parking Lot

Scale: 1" = 20'-0"

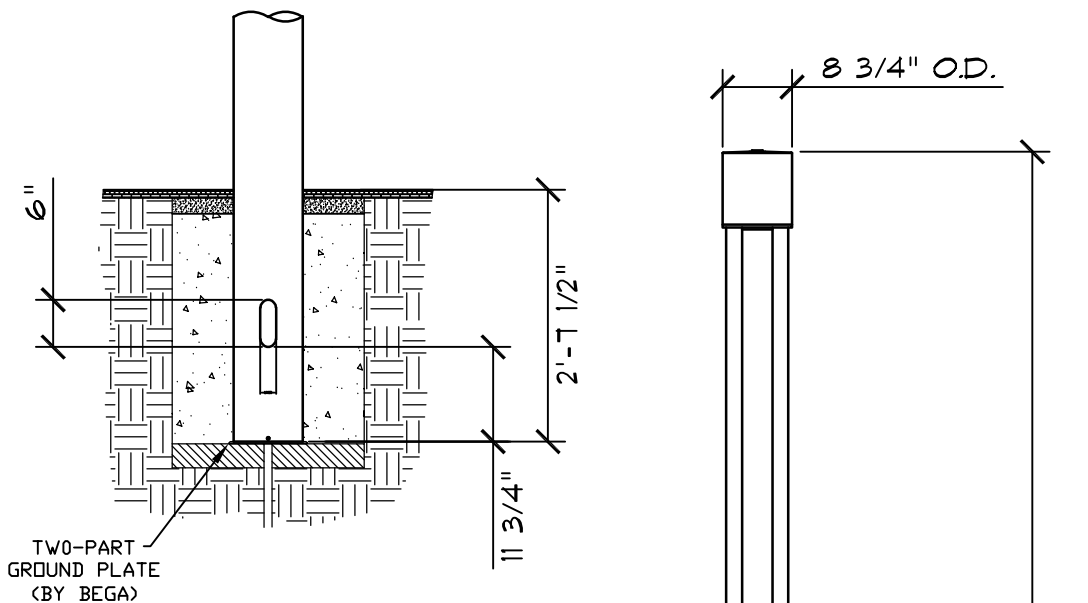
Site Lighting Statistics

	Grid Size	Average	Maximum	Minimum	Max/Min	Avg/Min
Calculation Areas						
+ Sidewalks	3' O.C.	2.71	4.42	0.96	4.6	2.8
* Driveway	15' O.C.	3.20	6.87	1.32	5.2	2.4
# Parking	15' O.C.	2.61	7.93	0.51	15.5	5.1



Lighting Notes:

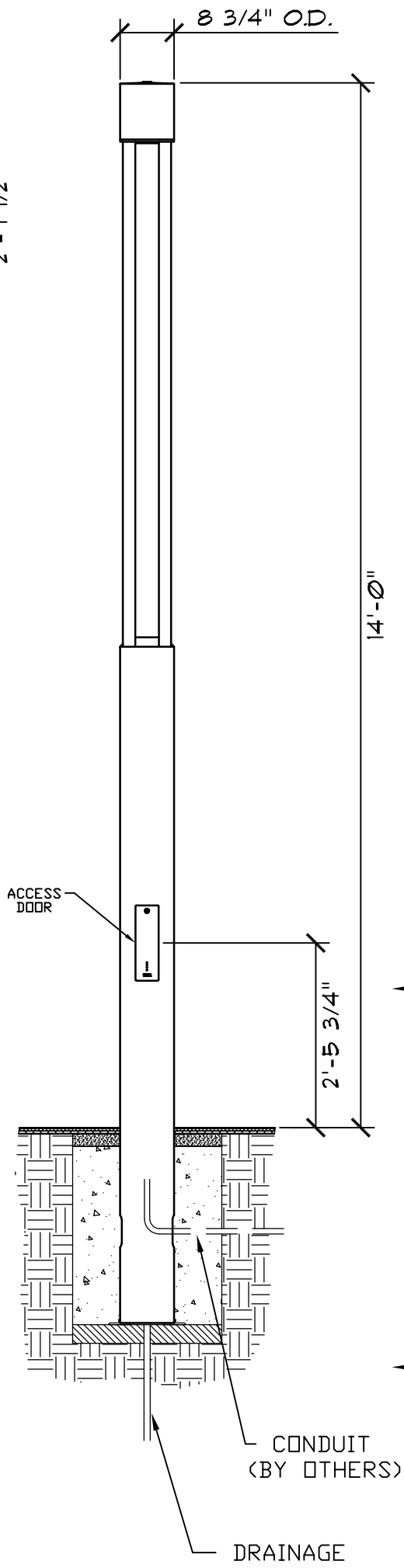
- Proposed site lighting fixtures will be connected to existing or proposed electrical circuits connected to existing photocell and timer controls. Photocell to prevent fixtures from operating during daylight hours and timer to turn fixtures off at a designated time. Photocell ON and Timer OFF. Several fixtures remain on until dawn for security purposes.
- Poles to be set plumb. Provide means to set plumb in field.



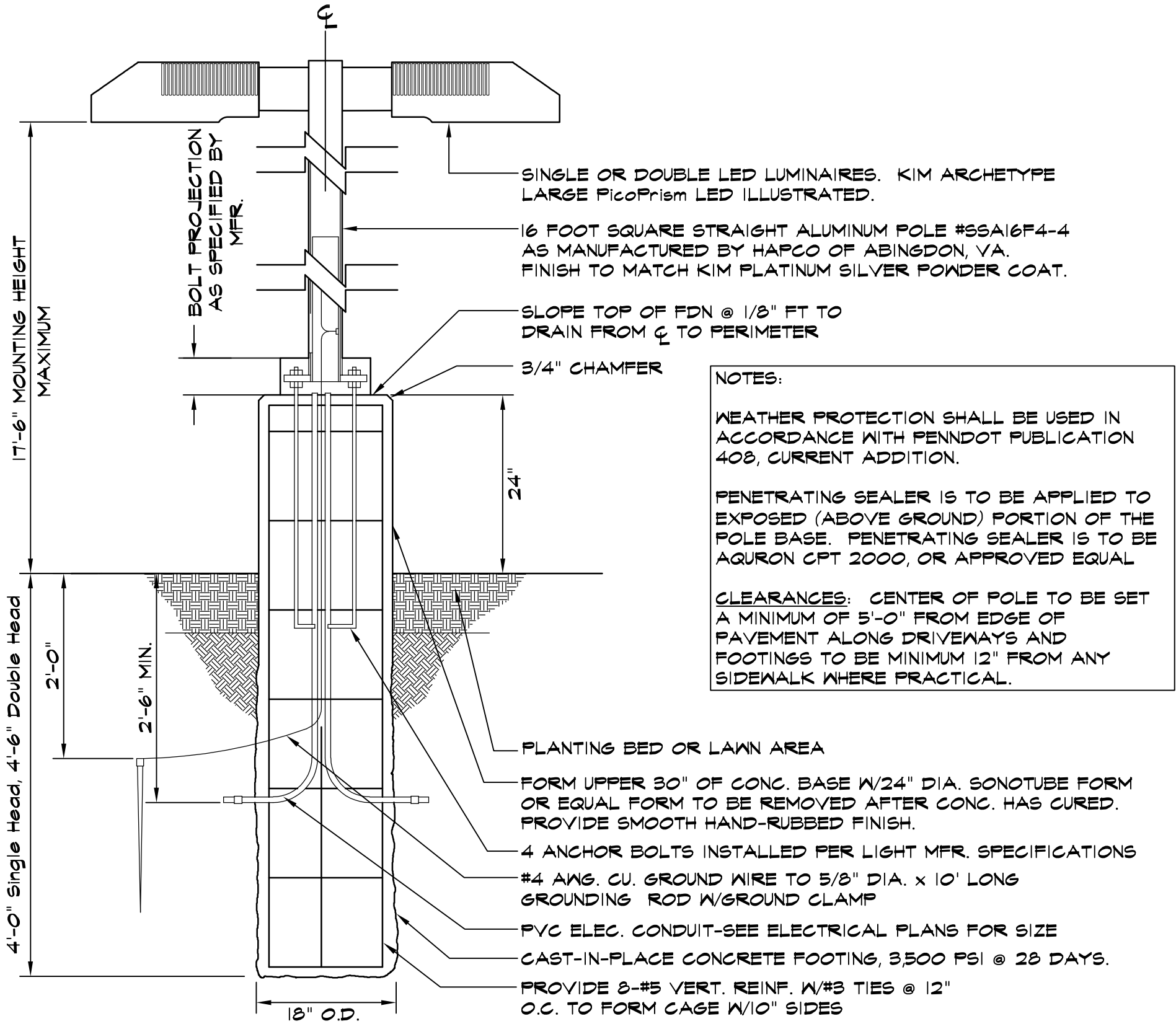
VIEW A-A



GROUND PLATE



1 Bega Light Column - Type 'LC14'  
Scale: 1/2" = 1'-0"



2 Kim Archetype - Types 'KA4H + KA5D'  
Scale: 1/2" = 1'-0"

**PENNSYLVANIA ONE CALL SITE INC.**  
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OSHA 1926.651 Special Excavation Requirements  
(d) Prior to starting an excavation, effort shall be made to determine whether underground installations, i.e., sewer, telephone, water, gas, electric, etc., are encountered. When the excavation approaches the estimated location of such an installation, the exact location shall be determined and when it is uncovered, proper supports shall be provided for the existing installation. Utility companies shall be notified of the location of such an installation. Utility TO THE START OF ACTUAL EXCAVATION.  
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**Sheet Title**  
**Site Lighting Plan**  
Scale As Shown Sheet No.  
Date 01/22/2019  
Drawn By CBI  
Project No. 1246.08